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## MILITARY AFFAIRS

## MILITARY HISTORY JOURNAL

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20 AUGUST 1986

USSR REPORT  
MILITARY AFFAIRS

MILITARY HISTORY JOURNAL

No 3, March 1986

Except where indicated otherwise in the table of contents the following is a complete translation of the Russian-language monthly journal VOYENNO-ISTORICHESKIY ZHURNAL.

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CPSU CONCERN FOR STRENGTHENING ECONOMIC BASES OF SOCIALIST STATE MILITARY  
MIGHT

Moscow VOYENNO-ISTORICHESKIY ZHURNAL in Russian No 3, Mar 86 pp 3-8

[Article by Candidate of Economic Sciences, Docent, Col V. A. Zubkov]

[Text] Vladimir Ilich Lenin, the founder and leader of the CPSU and the world's first socialist state, in his numerous works inseparably linked the nation's defense might with economic might. He gave great importance to the establishing and developing of socialist property and socialist production relations and to creating the material and technical base, for "it is impossible to make the nation capable of defense without the greatest heroism on the part of the people who carry out boldly and decisively great economic transformations."(1) In Lenin's works attention has been focused on the fact that for strengthening the reliable defense capability of our state, there must be highly developed industrial production in all the national economic sectors and based upon the most recent scientific and technical achievements.

The Leninist course carried out by our party of primary development given to socialist industry and above all its basis, heavy industry, made it possible to turn the nation into a mighty power. This provided the possibility of ensuring gigantic economic, social and cultural progress and carrying out the technical re-equipping of the Soviet Army.

The Soviet Union presently possesses a highly developed economy. National income has risen by more than 16-fold in comparison with the prewar level while the output of industrial products has increased by 24-fold. Our industry has developed twice as fast as in the developed capitalist states.(2) Over the last 5 years alone, national income has risen by 17 percent while the increase in industrial product was 20 percent. By the year 2000, the increase in national income and the output of industrial product should be at least 2-fold. Here it is essential to bear in mind the fundamental reconstruction and more rapid development of the machine building industry, primarily machine tool building, the production of computer equipment, instrument building, the electrical engineering and electronics industry. In the 12th Five-Year Plan, the increase rate of the products from these sectors is to outstrip the average rates for machine building as a whole by 1.3-1.6-fold.(3)

V. I. Lenin assigned an important place to agriculture in the structure of military-economic potential. "The Red Army," he emphasized, "cannot be strong without large state grain reserves, for without this it is impossible either to move the army freely or prepare it as one should. Without this it is impossible to support the workers producing for the army."(4)

In carrying out Lenin's cooperative plan, the Soviet people established large-scale socialist agriculture which during the years of the Great Patriotic War provided a dependable supply of food to the army and population and raw materials for industry, and was one of the important economic factors in the victory over the Nazi invaders. During the war years, the operational army alone consumed 40 million tons of food and fodder, it received more than 38 million greatcoats, over 70 million sets of cotton clothing, around 20 million padded jackets and trousers, and around 64 million pairs of leather footwear.(5) Under present-day conditions, the party's agrarian policy is being steadfastly carried out and the USSR Food Program is being consistently implemented. In 1981-1985, one-third of all the capital investments went to strengthen the physical plant of the kolkhozes and sovkhozes and the entire agroindustrial complex. As a result, the average annual volume of gross agricultural product now reaches 131 billion rubles.

Great tasks have been posed for the workers of the agroindustrial complex during the new five-year plan. In 1990, the gross grain crop will reach 250-255 million tons, for sugar beets 92-95 million tons, for potatoes 90-92 million tons, for raw cotton 9.1-9.4 million tons, for meat production 21 million tons (dressed weight), for milk 106-110 million tons, and for eggs 80-82 billion units.(6) Here it must be considered that around 60 percent of the light industry products manufactured from agricultural raw materials goes into the defense, aviation, electrical engineering, chemical and other industrial sectors. Around 17 percent of the cotton textiles, more than 5 percent of the woolen textiles and 48 percent of the linen textiles and a significant amount of natural leather are used for industrial purposes.(7)

V. I. Lenin assigned transport an important role in strengthening the nation's defense capability. He considered this "the most important material factor of a war having primary significance not only for carrying out military operations but also for supplying the Red Army with combat supplies, clothing and food."(8)

The experience of the Great Patriotic War fully confirmed the correctness of Lenin's views of the role of transport. Soviet transport, regardless of the enormous wartime destruction and difficulties, was capable of sustaining the colossal loads and supplying the front and the rear with everything essential. The total volume of military shipments alone on the railroads during the war years exceeded 18 million carloads, for inland water transport the figure was 2.7 million carloads, for motor transport 39 million carloads and for air transport 45,000 carloads.(9) Maritime transport played an important role in maintaining ties with enemy-beseiged cities, in supporting the amphibious landing operations as well as in economic ties with the Allies.

Contemporary warfare makes harsher demands on transport, that is: to support the rapid deployment of a multimillion-strong army, the regrouping of troops,

the conducting of operations at a rapid pace, the delivery of an enormous amount of materiel as well as evacuation. Simultaneously with the mass troop movements, transport must carry out extremely urgent and tight shipments for satisfying the needs of the defense economy. For this reason the interests of strengthening our nation's defense capability require the all-round preparation of the transport systems for dependable and stable operation in any situation.

In analyzing the structure of military economic potential, V. I. Lenin drew attention to the need to establish large reserves. "The side with more reserves," he emphasized, "will win out in a war...."(10)

During the prewar period the CPSU and the Soviet government, considering the growing military threat, set aside significant resources for creating state reserves and mobilization supplies. Their total value during the 18 months before the war almost doubled. From January 1939 through January 1941, the stockpiling of iron increased by 5-fold, rolled metals by 2-fold, copper by more than 2-fold, zinc by 2.2-fold and lead by 1.6-fold.(11)

Modern warfare demands that the supplies of materiel be established in a sufficient quantity, correctly stored in the theaters of operations and dependably concealed and sheltered. The stockpiling of finished products, raw materials and fuel will make it possible to more quickly convert the enterprises to producing military products, to surmount arising disproportions and more fully supply the public and the army. Very timely on this level are the measures adopted by the CPSU to develop the fuel and energy complex in Western Siberia and to carry out the Food Program.

In the structure of military-economic potential, V. I. Lenin assigned the chief place to man, to the worker. "The first productive force of all mankind," he wrote, "is the worker, the toiler."(12) The possibility of supplying the national economy with personnel and the volume and pace of military production depend upon the quantitative and qualitative composition of labor resources. The cultural and technical level of the workers is an important factor in scientific development, military-technical progress, for the growth of labor productivity and production efficiency. The state of labor resources influences the mobility of the national economy, the viability of the economy, the pace of developing military production and the time for introducing new combat equipment.

At present, substantial changes have occurred in the development of the main productive force of society. Professional skill, overall culture and the special knowledge of workers and kolkhoz members have risen significantly. The task is to fully activate the main reserve which is people and their high organizational level and discipline.

V. I. Lenin demanded not only the early establishing of powerful military and economic potential but also that the national economy be flexible and mobile and constantly ready to operate under wartime conditions, if there was the danger of aggression from imperialism. When the imperialists impose a war on us, he emphasized, "it is our sacred duty to soberly assess our situation, to consider the forces and test out the economic mechanism."(13)

The high economic readiness of the socialist state to repel aggression has assumed particular importance and acuteness under present-day conditions due to the enormous changes which have occurred in the nature of warfare, in the forms and methods of its unleashing and conduct, and is dictated by at least three main factors: by the heightened aggressiveness and adventurism of modern imperialism, by the presence of nuclear missile and other weapons making it possible to achieve the strategic aims of a war in a short period of time, and by the lack of time for the protracted reorganization of the economy in the course of the war.

The possibility of the surprise unleashing of a war by the imperialist states requires the maintaining of not only the armed forces in a high state of mobilizational readiness but also the national economy. The need for the high readiness of the national economy is determined also by the fact that in a future war, the conditions of economic mobilization and the operation of the rear become significantly more complex. The U.S. and NATO militaristic circles are planning the massed employment of nuclear missile weapons not only against the troop groupings and military installations but also the entire depth of the rear in the aim of destroying or substantially undermining the military economic potential, disrupting the system of economic relations and control, demoralizing the population and depriving it of the capacity to act. Under such conditions, it is difficult to count on the same scope and procedure of economic mobilization and a significant initiation of defense production in the course of the war, as was the case in previous ones. Modern warfare demands from the economy the capacity to achieve the highest results even in a period of threats, before the start of the war. The higher the prewar readiness of the economy, the shorter the time and the more successful its mobilization.

One of the underlying Leninist principles for ensuring the dependable defense capacity of the socialist state, high combat might and capability of its armed forces is the principle of maximum satisfaction of the Army and Navy material requirements. V. I. Lenin demanded that there be not "the slightest weakening in the task of supplying 100 percent of the Red Army needs and this should be put first...,"(14) for "the best army and the persons most dedicated to the revolution will be inevitably eradicated by the enemy if they are not sufficiently armed and supplied with food...."(15)

These instructions of Lenin's have been consistently carried out in the national economic development plans and in the distributing of material resources and budget allocations. Thus, considering the exacerbation of the international situation and the growing danger from Nazi Germany, the Communist Party and the Soviet government initiated energetic measures in the prewar period to accelerate the technical equipping and rearming of the Army and Navy in accord with the objective needs. While in 1930-1931, the defense industry annually produced 1,911 guns, 860 aircraft, 740 tanks, in 1938 already 12,687 guns, 5,469 aircraft and 2,270 tanks were being produced. Logistic support for the Army and Navy grew even more sharply in 1939 and through the first half of 1941. During this period, our industry provided the army with more than 17,000 combat aircraft, 7,600 tanks and over 80,000 guns and mortars.(16)

The Communist Party in the postwar period and under present-day conditions has been and remains loyal to the Leninist principle of the complete supply of the Armed Forces with the necessary means of armed combat and material-technical equipping. "In the future, we will not spare any effort," stated the General Secretary of the CPSU Central Committee, M. S. Gorbachev, "so that the USSR Armed Forces have everything necessary for the dependable defense of our fatherland and its allies and so that no one can catch us by surprise."(17)

V. I. Lenin viewed the problem of logistical support for the armed forces not only from the quantitative aspect but also the qualitative one. In generalizing the experience of wars, he concluded that in a war "the upper hand will be gained by the side which has the greatest equipment...and the best machines"(18) and that in the age of machine wars, "no endurance, no physical strength, no herd instinct and solidarity of the mass struggle can provide superiority...."(19)

In carrying out Lenin's legacy, the CPSU has directed the development of scientific and technical progress in the interests of creating the material and technical base of socialism, strengthening the nation's defense potential and equipping the Armed Forces with combat equipment and weapons.

"An historical accomplishment of socialism has been the establishing of military strategic parity between the USSR and the United States, the Warsaw Pact and NATO. This has strengthened the positions of the USSR, the other socialist countries and all progressive forces and has upset the plans of the aggressive imperialist circles for victory in a world nuclear war. The maintaining of this equilibrium is a major guarantee for ensuring peace and international security."(20)

The development level of science and technology achieved in our nation makes it possible to carry out the most difficult technical tasks and in a short period of time to develop any type of weapons on which the aggressors are wagering.

In the interests of preserving peace and international security, the Soviet Union has offered to abandon the competition in the area of the arms race. However, in a situation where the Western powers are stubbornly trying to shatter the existing equilibrium and are endeavoring to impose an even more dangerous round in the arms race, the USSR and the other socialist commonwealth states, in the interests of the secure defense of the socialist victories, have been forced to develop those areas of science and technology which ensure the maintaining of the defense sectors of the national economy on a proper level and the output of modern weapons and orient the scientific and technical personnel at working out the long-range problems the results of which can be employed in the development of weapons which will meet the highest demands in the future. "The Soviet Union, if it is confronted with a real threat from space, will find a method of effective counteraction." For this we have a powerful economy, advanced science, "a skilled working class, an educated people, a people totally dedicated to the motherland. We have, finally, such a powerful force as the party which is capable of skillfully leading our society along the correct course."(21)

In line with the enormous increase in military requirements, the problem of the economic use of human and material resources remains one of the most acute. The Leninist principle of achieving the greatest results with the least expenditures also operates as an unbroken law in the organizational development and functioning of the Armed Forces in peacetime, too. It requires careful analysis and calculation as to what amounts the planned measures will cost. Any decisions of a commander, engineer or chief should be economically thrifty and maximally effective. "A major role," pointed out the USSR Minister of Defense, MSU S. L. Sokolov, "is played by the commander's ability, using the material and technical means granted him, to provide highly effective training and indoctrination of the personnel and the fulfillment of all the tasks of the training period or training year. The means should correspond to the aims. Their thoughtless, uneconomic expenditure or the inability to use them with the greatest effect are a negative feature in the commander's activities."(22)

The policy elaborated by the party for savings and thriftiness with even greater pertinence raises the question of the responsibility of military personnel for the effective use of material, labor and financial resources. Each Soviet person should be profoundly aware that thriftiness is the way to our wealth and is truly the number-one task.

Under present-day conditions, the defense capacity of a state and the combat might of the army and navy more than at any previous time depend upon the state of the economy, science and technology and the defense industry. In relying on Lenin's military economic heritage and in developing it further in terms of the new historical conditions, the Communist Party has found a correct solution to the timely problems of ensuring reliable defense capability for our great motherland. Realizing under its leadership the designated goals in the area of Soviet economic and social development for 1986-1990 and for the period up to the year 2000 will ensure a qualitative new level in the prosperity of the Soviet people and a further strengthening of our state's economic and defense might.

#### FOOTNOTES

1. V. I. Lenin, PSS [Complete Collected Works], Vol 34, p 197.
2. See: M. S. Gorbachev, "Bessmertnyy podvig sovetskogo naroda" [An Immortal Feat of the Soviet People], Moscow, Politizdat, 1985, p 16.
3. PRAVDA, 9 November 1985.
4. V. I. Lenin, PSS, Vol 39, p 153.
5. "Velikaya Otechestvennaya voyna Sovetskogo Soyuza 1941-1945" [The Great Patriotic War of the Soviet Union of 1941-1945], Moscow, Voenizdat, 1985, p 524.
6. PRAVDA, 9 November 1985.

7. B. I. Kislyakov, "Legkaya industriya za 50 let" [Light Industry Over 50 Years], Moscow, Legkaya Industriya, 1967, pp 10-11.
8. V. I. Lenin, PSS, Vol 38, p 400.
9. "Sovetskaya ekonomika v period Velikoy Otechestvennoy voyny 1941-1945" [The Soviet Economy in the Period of the Great Patriotic War of 1941-1945], Moscow, Nauka, 1970, p 372.
10. V. I. Lenin, PSS, Vol 39, p 237.
11. "Istoriya KPSS" [History of the CPSU], Vol 5, Book 1, p 121.
12. V. I. Lenin, PSS, Vol 38, p 359.
13. Ibid., Vol 35, p 408.
14. Ibid., Vol 44, p 335.
15. Ibid., Vol 35, p 408.
16. "Sovetskaya ekonomika v period...," pp 11-12.
17. "Materialy Plenuma Tsentralnogo Komiteta KPSS, 23 aprelya 1985 g." [Materials of the Plenum of the CPSU Central Committee of 23 April 1985], Moscow, Politizdat, 1985, p 23.
18. V. I. Lenin, PSS, Vol 36, p 116.
19. Ibid., Vol 9, p 155.
20. PRAVDA, 26 October 1985.
21. M. S. Gorbachev, "Aktivno deystvovat, ne teryat vremeni" [Work Actively, Do Not Waste Time], Moscow, Politizdat, 1985, pp 25, 14-15.
22. S. L. Sokolov, "Leninskiy stil v rabote voyennykh kadrov" [The Leninist Style in the Work of Military Personnel], Moscow, Voyenizdat, 1983, p 33.

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## MANEUVERING OF STRATEGIC RESERVES IN FIRST PERIOD OF GREAT PATRIOTIC WAR\*

Moscow VOYENNO-ISTORICHESKIY ZHURNAL in Russian No 3, Mar 86 (signed to press 21 Mar 86) pp 9-20

[Article by Candidate of Military Sciences, Docent, Lt Gen A. I. Yevseyev, published under the rubric "Soviet Military Art"]

[Text] In the course of the last wars, the Soviet Command devoted the closest attention to the questions of organizing and maneuvering the strategic reserves, viewing this as one of the most important principles of military art.

During the years of the Civil War, the young Soviet republic was forced to fight simultaneously on several fronts, against numerous hordes of interventionists and internal counterrevolution and under the conditions of a constant shortage of men and equipment. This required the broadest maneuvering of strategic reserves over the interior operational lines. In carrying out a maneuver a special role was assigned to the cavalry. Thus, the 1st Horse Army, in line with the offensive by the White Poles in April-May 1920, was regrouped from the Northern Caucasus to the Uman area and became the main shock force of the Southwestern Front in the Kiev Operation. In October of the same year, it was shifted from the Western to the Southern Front. As a total over the war years, up to 75 percent of the Red Army forces carried out a strategic shift from one front to another. Here certain divisions were regrouped up to five times.(1)

During the first period of the Great Patriotic War, Soviet military art was enriched with experience in carrying out the broad and bold maneuvering of strategic reserves. During this period the major problem for strategic defense was an increase in the strength of the defense. Along with the art of preparing the troops and the terrain, organizing and maintaining cooperation and the manifesting of activeness on the part of the defending troops, maneuvering also assumed major significance.

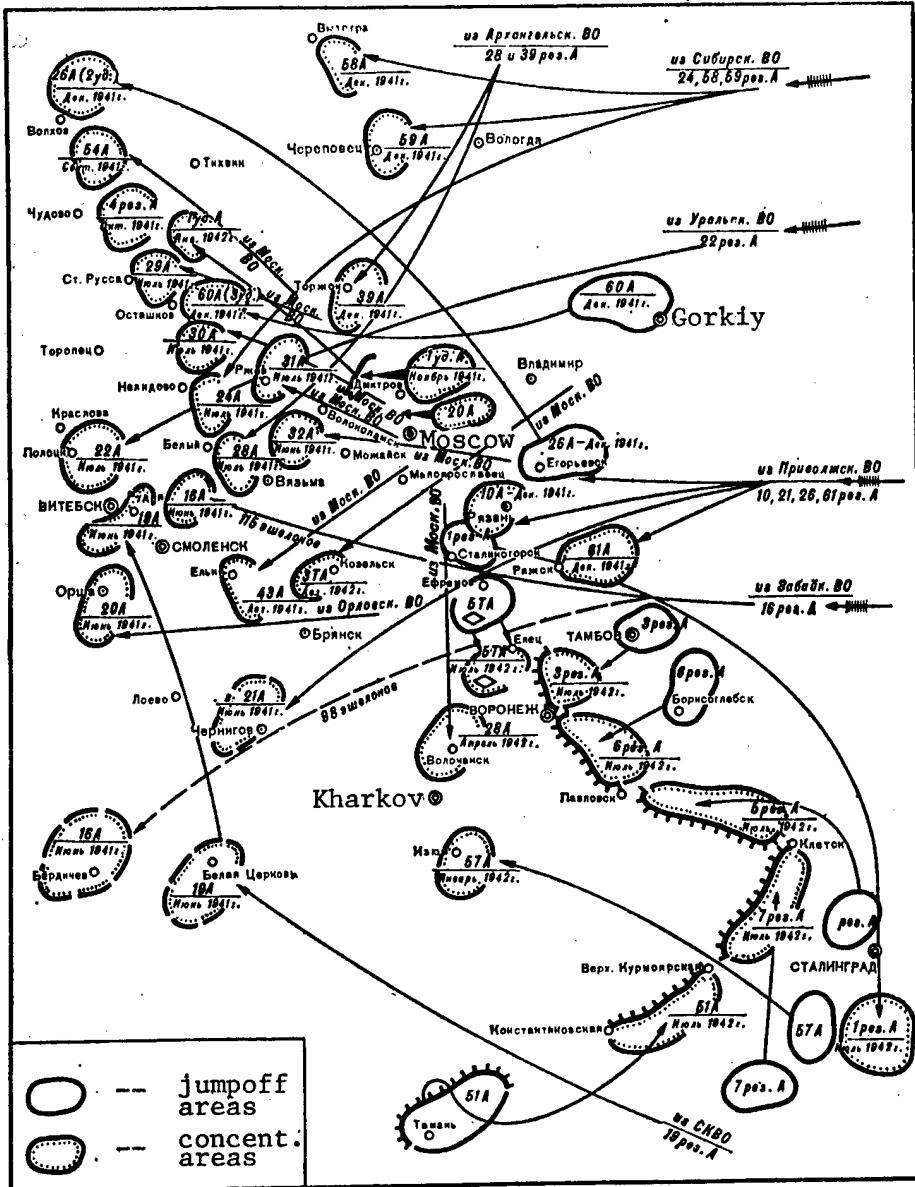
The necessity of maneuvering the strategic reserves in the initial period of the war was caused by the fact that the defensive forced on the Soviet Army was characterized by a great spatial scope, by low troop densities, by a disadvantageous balance of forces on the crucial sectors and by the presence of significant gaps in the operational and strategic configuration of the

troops. In repelling the offensive of the major enemy forces, the fronts were forced during the very first days of the war to commit to battle their second echelons and reserves. Moreover, the enemy had the initiative and attacked on sectors advantageous for it while the enemy's main shock force was made up of large groupings of tank and motorized troops which had high mobility.

The maneuvering of strategic reserves under these conditions was carried out for effecting a broad range of extremely diverse strategic and operational tasks both on the defensive and on the offensive.

During the first week of the war, Headquarters was forced to maneuver its reserves in the aim of restoring the front which had been breached by enemy groupings and creating a strong deeply echeloned defense (see the diagram). In preparing to repel the advancing aggression, the General Staff, upon instructions of the VKP(b) [All-Union Communist Party (Bolshevik)] Central Committee on 13 May 1941, issued the directives to bring up the 22d Army from the Urals Military District into the region of Idritsa, Sebezh, Vitebsk; the 21st Army from the Volga Military District into the region of Chernigov, Konotop; the 16th Army from the Transbaykal Military District to the region of Berdichev, Proskurov; the 19th Army from the Northern Caucasus Military District to the region of Cherkassy, Belya Tserkov. (2) However, the enemy launched the main thrust not on the southwestern sector, as had been assumed by the Soviet High Command before the start of the war, but rather on the western, Smolensk sector. Due to the establishing of predominant supremacy primarily in tanks and aviation, the enemy shock groupings succeeded in breaching the defenses of the Western Front and advancing to a significant depth. The Soviet troops here were in the most difficult situation. For this reason Headquarters was forced to shift a larger portion of the strategic reserves to the given sector. In particular, the formations of the 19th and 16th Armies which were moving to the southwest were turned to the northwest. Together with the 20th, 21st and 22d Armies which were moving up on this sector, by the end of 28 June, they were to occupy in the rear of the Western Front the line of Kraslav, Vitebsk, Orsha and then along the Dnieper River to Loyev.

In the aim of reinforcing the western sector, Headquarters at the end of June and the beginning of July 1941 shifted the 24th and 28th Armies here and these had been organized on the territory, respectively, on the Siberian and Arkhangelsk Military Districts. Together with the 29th, 30th, 31st and 32d Armies organized on the territory of the Moscow Military District, these were incorporated in the front of reserve armies and the troops of this front were given the task of organizing the defensive on a line of Starya Russa, Ostashkov, Yelnya, Bryansk. (3) During the third 10-day period of July, 14 first-echelon divisions of this front were committed to battle for launching a powerful counterstrike at Smolensk. Although in the course of this counterstrike it was not possible to defeat the opposing enemy grouping, its formations did suffer a tangible loss. On 30 July, the Nazi Command was forced to give the order for the Army Group Center to go over to the defensive and this actually meant the collapse of the Nazi attempts to take Moscow without a halt.



The Maneuvering of Armies From the Reserve of HQ SHC  
During the First Period of the Great Patriotic War

The maneuvering and prompt commitment of strategic reserves made it possible to eliminate wide reaches which arose as a consequence of the deep penetration of enemy shock groupings into the defenses or as a result of the encirclement of individual Soviet troop field forces. Thus, in the first half of October 1941, the Nazi troops succeeded in breaching the defensive front on the Vyazma and Bryansk sectors, they surrounded a portion of the formations of the 19th and 20th Armies of the Western Front, the 24th and 32d Armies of the Reserve Front and the 3d and 13th Armies of the Bryansk Front, and pushed far to the east. For restoring the strategic defensive front, Headquarters quickly moved

up new units and formations from the Moscow Military District and the Northwestern Front. In the course of intense defensive operations, new troop formations from the eastern and southern regions of the country were moved up to areas to the north, west and south of Moscow. The moving up and prompt commitment of the strategic reserves to battle sharply reduced the enemy's rate of advance.

In a number of instances the maneuvering of strategic reserves was carried out in the aim of eliminating the threat of a breakthrough and stopping the further advance of enemy troops. At the start of July 1942, the Nazi troops had succeeded in breaching the defenses on the left wing of the Bryansk Front and on the right wing of the Southwestern Front. There was the threat of a breakthrough by enemy troops deep into the territory and the capturing of Voronezh. In the aim of preventing the enemy from crossing the Don and stopping the further advance of its troops, Headquarters decided to move up the following units: the 3d Reserve Army from the Tambov area to a line of Zadonsk, Voronezh; the 6th Reserve Army from the area of Borisoglebsk to a line from Voronezh to Pavlovsk; the 5th Reserve Army from the region of Stalingrad to the line of Pavlovsk, Kletskaya. The 7th Reserve Army was moved up to the defensive line of Kletskaya, Verkhnyaya Kurmoyarskaya. The 1st Reserve Army was regrouped from the Stalinogorsk area to the Stalingrad area. In the second half of July, when the enemy troops reached the main defensive line of the Stalingrad Front, Headquarters in addition moved up into its area two rifle divisions, a tank corps, four separate tank brigades, nine tank battalions, two antitank brigades and several mortar and artillery regiments. The 51st Army was incorporated in the front and this was regrouped from the Taman Peninsula to the Don for defending the line Verkhnyaya Kurmoyarskaya, Konstantinovskaya.

A major maneuver was also carried out by the aviation. To reinforce the 8th Air Army, Headquarters during the period from 20 July through 17 August, rebased 23 air regiments from different regions. The 1st Fighter Air Army of the Headquarters Reserve was moved to the Yelets area. By 20 August, five long-range air divisions had been moved to airfields located closer to Stalingrad. (4)

The broad maneuver of the strategic reserves made it possible to give our defense an active nature, to defeat the enemy shock groupings, to halt their further advance and support the going over of the three fronts to a counteroffensive with decisive goals.

In November-December 1941, a major maneuver by the strategic reserves was carried out in the aim of having the troops occupy the rear line being prepared for defense of the Vytegra, Cherepovets, Rybinsk, Yaroslavl, Gorkiy, Saratov, Stalingrad, Astrakhan. Initially the plan was to move up to this line from various regions of the nation some nine reserve armies (10th, 26th, 57th, 28th, 39th, 58th, 59th, 60th and 61st) which included 59 rifle divisions and 13 cavalry divisions. In the event of the unsuccessful development of the defensive operations the reserve armies were to check the enemy's further advance and prevent the breakthrough of its troops into the interior of the nation's territory. (5)

Actually moving up to the designated line were: the 58th and 59th Armies from the Siberian Military District, the 26th from the Volga District. The 60th Army which had been organized on the territory of the Moscow Military District was supporting the defensive line from Urzha to Kozmodemyansk and the Gorkiy Fortified Area. The other reserve armies were used by Headquarters for reinforcing the fronts conducting defensive or offensive operations.

The strategic reserves were extensively maneuvered also in the interests of establishing shock groupings of the fronts in going over to the counteroffensive. The transfer of the 1st Shock Army and 20th Army at the end of November from the Headquarters reserve and the concentration of them in the area to the north of Moscow made it possible to launch a series of counterstrikes against the Nazi troops and to halt their further advance together with the 30th and 16th Armies.

From 24 November 1941, by the orders of Headquarters, the 10th Reserve Army began to be moved from the Volga Military District to an area to the southwest of Ryazan and the 61st Reserve Army to the area of Ryazhsk, Ranenburg, Michurinsk. Individual formations from the 60th, 24th and 26th Armies were moved toward Moscow from the east. In addition, nine rifle divisions, two cavalry divisions, eight rifle brigades and six tank brigades were turned over by Headquarters to the Western Front. By the bold maneuvering of aviation, Headquarters was able to concentrate around 1,000 aircraft near Moscow. (6)

Such a scale of using the strategic reserves made it possible for the Soviet Command to create the necessary shock groupings on the wings of the Western Front, to achieve a change in the balance of forces in personnel on these sectors, to win operational air supremacy and in a brief period of time in the course of the defensive to prepare conditions for going over to a counteroffensive. As a result of the successfully carried out counteroffensive by Soviet troops at Moscow, a favorable situation arose for developing a general offensive on the main strategic axis of the Soviet-German Front.

Another example could be given. At the end of September 1942, the offensive capabilities of the Nazi shock grouping fighting on the Stalingrad sector had been completely exhausted. With the exception of the formations fighting in the city, two armies of Army Group B were forced to begin to go over to the defensive. In this situation, the reserves sent by Headquarters were assigned, in essence, not so much to strengthen the troops on the defensive at Stalingrad as to establish shock groupings of the fronts in the aims of going over to the counteroffensive.

In the course of the 1941-1942 winter offensive, the strategic reserves were maneuvered in the aim of increasing the force of the attack by the fronts and for exploiting the achieved success. Thus, in the third 10-day period of December, the zone of advance of the Kalinin Front was significantly widened. Headquarters moved up from its reserve (from the territory of the Arkhangelsk Military District to the region of Tverzhok) the 39th Army and committed it between the 22d and 29th Armies. In attacking on the Rzhev axis, these armies by the beginning of January 1942 had captured the line of Staritsa, Lotoshino, they had reached the Volga and outflanked Rzhev to the north and west. (7)

For the deep outflanking of the Army Group Center, the Command of the Northwestern Front was given the mission of launching an attack from the region of Ostashkov on the axis of Toropets, Velizh, Rudnya, and together with troops of the Kalinin Front to cut off the enemy's escape route. In the aim of reinforcing the troops, Headquarters regrouped the 60th Reserve Army (renamed the 3d Shock Army) from the Moscow area to the Ostashkov area and, in addition, made available to the commander of the Northwestern Front four rifle divisions, four ski battalions and two rocket artillery battalions.(8) In fighting as part of the shock grouping of the front, the formations from the 3d Shock Army by 22 January 1942 had surrounded the enemy garrison in the town of Kholm and had outflanked the Demyansk Nazi grouping from the south. Subsequently, together with the 4th Shock Army, they continued the offensive on the Vitebsk axis deep into the rear of Army Group Center.

In using the formations shifted from Western Europe, the command of Army Group Center at the end of January and the beginning of February undertook several counterstrikes against the Soviet troops fighting on the western sector. The field forces fighting here, weakened by the protracted battles, lost their offensive capability. Then, making available from its reserve for the Kalinin Front a guards rifle corps, seven rifle divisions and four air regiments, and for the Western Front a guards rifle corps, three rifle divisions, two airborne brigades, 200 tanks, 40 aircraft and 60,000 men from the draft reinforcements, Headquarters demanded that the high command of the Western Sector develop an offensive and complete the defeat of Army Group Center.(9)

During the first period of the war, Headquarters also maneuvered the strategic reserves for carrying out other tasks. As a total from its reserve, 27 army headquarters, 278 divisions, 358 separate brigades and 300 separate regiments were turned over to the fronts.(10) Here the Soviet Supreme High Command endeavored to use the strategic reserves for carrying out the most important tasks, concentrating them primarily on the main sectors. Thus, during the 1941 summer-autumn campaign and in the winter of 1941-1942, the basic mass of strategic reserves was moved up to the western (Moscow) sector and during the 1942 summer-autumn campaign, to the south for covering the Stalingrad and Caucasus Sectors. By maneuvering the reserves, Headquarters by 1 August 1942 had been able to concentrate around one-third of the rifle troops and artillery, almost 50 percent of the tanks and 40 percent of the aviation from the entire operational army in the Voronezh, Stalingrad, Northern Caucasus and Transcaucasian Fronts.(11)

The bold maneuvering of the strategic reserves and their massed employment on the crucial sectors were one of the most important factors which ensured the taking of strategic initiative from the enemy and the successful conducting of strategic defensive and offensive operations. At the same time, it must be pointed out that the strategic reserves moved up by Headquarters at the outset of the war in a number of instances were late in reaching the designated areas and were committed to battle piecemeal. Thus, three divisions from the 16th Army were committed to battle in the Smolensk area immediately after unloading from the trains, while the remaining formations were still enroute. Formations of the 19th, 20th, 21st and 22d Armies were also committed at different times. The sharply changing situation forced a frequent shift of

the unloading areas for the reserve armies to the east. For example, for the formations of the 19th Army, initially the unloading stations of Golynka, Liozno were set. The last units of the army unloaded in Smolensk and Velnya and these were 100-150 km away from the previous area.(12) All of this significantly reduced the effectiveness of the operational employment of the reserve field forces.

During the first period of the war, the Soviet Supreme High Command, in addition to maneuvering the strategic reserves, also carried out maneuvers between fronts and within a front and the shifting of large masses of troops from one sector to another both in conducting a strategic defensive as well as on the offensive. The distances of Soviet territory, regardless of the enemy's significant advance, created good conditions for maneuvering the strategic reserves outside the area of immediate hostilities.

The necessity of clearly allocating the available lines of communications and transport as well as ensuring the concealed moving up of the troops required a high degree of centralized command and control of the field forces and formations involved in the maneuver. For this reason, the organizing of the maneuvering of strategic reserves was one of the most important functions of the Supreme High Command and the General Staff.

Planning the moving up of strategic reserves and their command and control were carried out by the General Staff on the basis of the instructions of Headquarters. In the process of planning they usually set out: the goal of the maneuver, the men and weapons to be involved in the maneuver, the fronts to which the forces were to be assigned as well as the time and sectors (areas) of the regrouping. Here they took into account the existing situation, the state and capabilities of all types of transport on the designated routes for moving up the reserves.

The field forces and formations involved in the maneuver were moved up to the designated areas in accord with the Headquarters directives. As a rule, these gave: the name of the field force (formation), its composition and the attached units, the method of the move (type of transport), the new areas and dates of concentration, the routes, the combat mission and the questions of supporting the troops to be moved up. For troops transported by rail and water transport, in addition, the following were established: the areas, time, sequence and dates of loading, dispatch and unloading, the amount of transport to be assigned and the procedure for providing a cover against air strikes. Thus, the Headquarters directive of 24 November 1941 for moving up the 10th Reserve Army from the area of Kuznetsk stated: the 10th Reserve Army by the evening of 2 December was to be concentrated in the area of Ryazan, Kanino, Shilovo. The formations were to be moved by rail as follows: the 322d sd [rifle division] to Rybnoye, the 330th sd to Rayzan, the 328th sd to the stations of Turlatov, Vyshgorod, the 322d sd to the station of Konzino, the 325th sd to the stations of Krutitsy, Shilovo, the 326th sd to the stations of Zhelobovo, Kenzino, the 324th sd to Shilovo, the 57th kd [cavalry division] to the station of Kenzino and the 75th kd to the stations of Laskovo, Solodzha. Attention was to be given to preventing the enemy from moving up to Ryazan. The air cover for the unloading and concentration areas was to be provided according to orders of the Air Force command.(13)

The dates for moving up to the concentration areas were set by Headquarters considering the distance, the selected method, the state of the lines of communications, the degree of enemy opposition and other factors.

In accord with the Headquarters directive, the VOSO [military railroads] staffs and bodies worked out a plan for moving the troops of the field force (formation) by rail transport. The plan, as a rule, was drawn up graphically. It gave the routes, the number of trains, the pace and date of loading, as well as the loading and unloading areas.

Having received the Headquarters directive, the commanders of the reserve armies drew up a plan for moving into the new area. The plan usually set out: the sequence for the moving up of the formations (with the move by rail transport the procedure and sequence of the move), the march formation of the troops, the grouping in which they would reach the designated concentration areas, the missions for the formations in the event of encountering the enemy, the organization of support and command. The army staff worked out a plan for the move as well as the battle orders for the formations and army units, it issued the missions to them and organized control over their fulfillment as well as all types of support.

Depending upon the situation and the time allocated for organization, the plan for the move-up was worked out with a varying degree of detail. Usually it was drawn up on a map. Appended to it were an explanatory key, the calculation for the transporting of the formations and units by rail as well as the plans for organizing support and command.

A strategic maneuver by the field forces and large formations from the interior of the nation and from one sector to another was carried out using various types of transport depending upon the distance.

During the first period of the war, particularly at its outset, the reserve armies were most often moved up to threatened sectors from the territory of the interior military districts. In a majority of instances the Headquarters Reserve field forces and formations were transported by rail, as movement under their own power required a significant expenditure of time and this delayed their concentration and commitment to battle.

Usually due to the great load and limitation of the railroad network, the reserve armies were moved up over one and more rarely over two rail routes. When the army formations had to be moved up as quickly as possible, they were allocated three routes. Thus, the movement of formations from the 19th Army at the beginning of the war from the Ukraine to the western sector was carried out over three routes: Kiev, Bryansk, Smolensk; Kiev, Kursk, Vyazma; Kiev, Moscow, Vyazma. (14) In November 1941, the 10th Army also moved up over three routes to the area to the southwest of Ryazan.

The number of trains which delivered each army varied and depended chiefly upon the TOE composition of its troops. For example, 213 trains were assigned to move the troops of the 16th Army and 114 for the 39th Army. Each rifle

division as an average required 16-18 trains and a cavalry division took 13-14. (15)

In a number of instances, the reserve armies were moved up to new areas by a combined method: the formations which were stationed a great distance away from the concentration areas were transported by rail; the closest formations moved under their own power. For example, for carrying out the operation in the Smolensk area, in July 1941, Headquarters ordered the commander of the 29th Army to move the 243d Rifle Division to a line 25 km to the west of Toropets by rail transport while the 256th and 252d Rifle Divisions would move under their own power (on foot). (16)

In maneuvering over an insignificant distance the field forces and formations, as a rule, traveled under their own power. An example would be the moving up of the 30th Army into an area to the north of the Western Dvina, the 28th Army to the region of Terebinya, Szhnastye, Seshcha, the 32d Army to the Vyazma region and the 33d Army to the Spas-Demyansk region. In moving up under their own power, the armies usually designated two or three routes figuring one route for each first-echelon division.

Sometimes the formations of the strategic reserve were shifted to a new area by water or motor transport. Thus, in August-September 1942, for reinforcing the Transcaucasian Front, Headquarters assigned 2 rifle corps and 11 separate rifle brigades. These formations were transported from Astrakhan and Krasnovodsk to Makhachkala over the Caspian Sea. Headquarters ordered the people's commissar of the Navy to assemble all the vessels of the Caspian Naval Flotilla at Astrakhan and use them for transporting the troops and weapons. Moreover, to accelerate the transporting of reserves, 840 motor vehicles were made available to the commander of the front. (17)

All the organizational work of the command and the staffs in the course of the preparation and the move was aimed at ensuring the arrival of the troops at the designated area within the established time at full force and ready for fighting. In this context serious attention was given to the most effective configuration of the march formation (the order of the moving up of the formations by rail transport) considering the situation, the nature of the forthcoming task, the planned operational configuration of the troops in commitment to battle, the availability of transport and the state of the routes.

The march formation of an army in moving up under its own power was set considering a possible encounter with the enemy. Provision was made for it to deploy rapidly for fighting. The divisions assigned to fight in the first echelon moved up ahead. Behind them marched the formations of the second echelon and the reserves. The march formation of the divisions, as a rule, consisted of the march protection, the column of main forces and the column of the rear. A forward detachment was usually sent out to support the deployment of the main forces in the new areas or on the designated line. Vanguards were sent out ahead of the columns of main forces and their make-up depended upon the probability of encountering the enemy. In a majority of instances a reinforced rifle regiment was sent out in the vanguard of a division. If there was no danger of encountering the enemy, the march formation of the

formations was formed up considering convenience of movement and achieving high march speeds.

The scope of the measures carried out by the commander and the staff of the army to support the advance of the troops depended chiefly upon the time allocated by Headquarters for its organization. Particular attention was paid to engineer support, to coverage against enemy air strikes and to the logistical support of the troops.

Engineer support for the move of the troops by rail was carried out primarily in the aim of reducing the loading time, for ensuring camouflage of the trains enroute and for the rapid movement of the troops into the concentration areas. In moving up under one's own power, the preparation of the routes, the organizing of crossing over water obstacles, the reinforcing and repair of bridges and the camouflaging of troops in rest and concentration areas assumed primary significance.

Engineer support was provided by the forces of the TOE engineer subunits and units from the divisions and the army. In a number of instances engineer units from the Headquarters Reserve were assigned for the period of the move to the armies.

The air defense for the troops in moving up by rail transport was provided within the general system of national air defense as well as by the men and weapons of the transported troops. The Headquarters directives usually stated: "The air cover for the moving troops is the responsibility of the air defense commander." In a number of instances this task was entrusted to the Air Forces commander. Along the march chief attention was given to covering the main forces of the formations in the initial areas and in their passage of barrier sections as well as to an air defense for road junctions and crossings over water obstacles. The antiaircraft artillery subunits and units in the formations were usually distributed along the routes and columns and were constantly ready to deploy for repelling enemy air strikes. Sometimes in daylight the patrolling of fighter aviation was organized in the area of the army's movement.

Great importance was given to ensuring concealment for the regrouping of the troops. The forms and methods of achieving this were chosen depending upon the method of movement, the situational conditions as well as the capabilities of enemy reconnaissance. In the process of the movement of troops under their own power, special attention was given to concealing the aim of the regrouping, the routes and time of the move as well as the concentration areas of the field forces and formations. With rail transporting, the enemy was misled on the purpose of the regrouping, the routes and scale of carrying it out, as well as the loading, unloading and concentration areas.

Careful planning and strict observance of the envisaged measures for concealing the move of the troops made it possible to carry out concealed regrouping of the reserve field forces and formations to the Moscow area and the surprise going over to a counteroffensive in December 1941. The strategic reserves during the period of preparing for the counteroffensive in the course

of the Battle of Stalingrad were also concentrated without the enemy's knowledge.

Rear support for the troops in moving up into new areas consisted in establishing the necessary supplies of materiel prior to the start of the move as well as in the new concentration area. In 1941, when the reserve armies were being moved up basically from the interior of the nation, their rear support in the new areas was entrusted to the central bodies of the NKO [People's Commissariat of Defense]. Thus, in the Headquarters directives for the moving up of the 10th, 26th and 61st Reserve Armies to the chief of the Main Directorate for the Formation and Manning of Troops, to the chief of the Soviet Army Rear and to the chief of the Main Artillery Directorate, the army units were ordered to be brought up to strength after they had arrived in the new positions, fuel and ammunition would be brought up to standard and continuous supply would be ensured for food, feed and clothing for the units.(18) Subsequently, supply of the reserve troops with their concentration in the designated areas prior to the arrival of the army rear services there, was provided by the head departments of the army dumps which moved up ahead of time into the new areas. Logistic support for the troops in the day's halt areas in moving up under their own power was provided, as a rule, by army resources.

The methods of command and control over the moving troops were marked by diversity. In the event of the rail transporting of the reserve formations and field forces, chief attention on the part of the command and the staffs was paid to ensuring the fulfillment of the troop movement plan, the prompt concentrating of the troops at the designated areas and the clarifying of their missions. In the aim of providing continuous and effective control in the course of the move, operations groups from the army staff were sent out to the concentration areas or to the unloading areas. Thus, the Headquarters directives to the commanders of the 16th and 19th Armies ordered that an operations group with communications equipment be sent out for directing the unloading and the assembling of the troops in the new area. A group of responsible officers from the army staff was sent out to each division of the 10th Army and these officers were to provide control over the unloading of the units, the deployment of the troops in the new area as well as the organizing of measures for combat and logistic support.(19) In a number of instances, after adopting the plan and setting the missions for the formations, the army commander with a small group of generals and officers would visit the new concentration area. Command and control of the troops in the loading areas from this time were entrusted to the deputy army commander with a group of staff officers.

In the transporting of troops by rail, command and control were provided chiefly by using the communications equipment of the military commandants as well as dispatcher communications. In the event of the destruction of the wire communications lines by the enemy, control over the movement of trains was provided by liaison officers in the field who flew to the railroad sections on two P0-2 aircraft. The VOSO chief of the Soviet Army established operations groups for immediate leadership over troop train traffic on the busiest railroad sections.

If the troops were moving up to the designated areas by a march, the operations groups, as a rule, moved ahead of the first echelon formations and ensured the passage of the columns through the barrier lines and control lines. Subsequently they moved in such a manner as to arrive in the new area 1 or 2 days prior to the start of the concentration of the main forces there.

The experience of the Great Patriotic War has shown that under the conditions of fighting on fronts of enormous length, with great troop mobility and the dynamic development of military operations, the role of maneuvering the strategic reserves was significantly greater. Here maneuvering began to be a very complex process requiring the manifestation of art by the Supreme High Command, the high skills of the commanders and staffs of all levels, the necessary marching preparations for the troops and the organizing of their all-round support.

In a future war, if the aggressive forces of imperialism succeed in starting it, the belligerents will employ new weapons possessing enormous destructive force. As a consequence of this the fighting groupings of armed forces can in the shortest time suffer great losses and the replenishing of these will depend upon the speed of maneuvering the strategic reserves.

The lessons of the initial period teach that: in preparing the nation and the Armed Forces to repel imperialist aggression, the establishing and training of strategic reserves should be carried out ahead of time so that by the start of the war the Supreme High Command would have available the necessary amount of men and equipment and the maneuvering and commitment to battle of these would make it possible to have a decisive influence on the course and outcome of military operations.

As the most important means of maneuvering in the first period of the war, Headquarters used chiefly the field forces and formations of the Ground Troops. Along with this, definite forces of aviation, the Navy and air defense troops were also involved in maneuvering. However, the scattering of aviation between the fronts and army formations which occurred at the outset of the war, the subordination of the fleets to the commanders of the fronts and the organizational development of the Air Defense Troops greatly limited the possibilities of involving the men and weapons of these Armed Services in strategic maneuvering.

The maneuvering of strategic reserves in the operations of 1941 was carried out predominantly from the interior to the front, since a majority of the reserve field forces and formations had been organized on the territory of the interior military districts and in the course of the commenced war. During the 1942 summer-autumn campaign, the maneuvering of many operational field forces was carried out also along the front. This as explained primarily by the fact that by the start of the campaign basically the mobilized reserves were shifted closer to the front and their main grouping was concentrated on the western sector.

With the establishing of tank corps and then the first tank armies which, as a rule, comprised the Headquarters Reserve, the objective prerequisites arose for carrying out the maneuver in a shorter time and at a rather high speed.

The experience of the first period of the war shows that the correct choice of the areas for concentrating the efforts of the strategic reserves and their prompt commitment to battle ultimately had a crucial influence on thwarting the plans of the Nazi Command and on creating the necessary prerequisites for defeating the enemy troops in crucial engagements and battles. On the part of the Supreme High Command this required a profoundly sound setting of the sector for the possible concentration of the enemy's main efforts when it went over to the offensive. The insufficiently valid assumption on the launching by the Nazi troops at the start of the war of a main push to the southwest was the reason that certain reserve armies in the spring of 1941, upon instructions of the General Staff, had begun not to move to the west but to the southwest. This necessitated their immediate regrouping to the Smolensk area. For this same reason, in the summer of 1942, individual field forces of the strategic reserve were late in being committed to battle on the Stalingrad Sector.

It must be pointed out that the rate of maneuvering the strategic reserves during the first period of the war did not always correspond to the dynamically developing situation on the fronts. Due to the rapid retreat of the troops, the Soviet Supreme High Command for restoring the breached front in a number of instances was forced to commit the strategic reserves to battle prior to the completion of their concentration in the designated areas, sometimes piecemeal, without the corresponding preparation and the taking of measures for combat and logistic support. The very creation of reserves was very difficult since all the measures related to their organization, manning, weapons and combat training were carried out in a majority of instances in extremely short times and under the conditions of a shortage of weapons and combat equipment.

#### FOOTNOTES

- \* The strategic reserves are made up of units, formations and field forces of the various Armed Services which are directly under the superior command as well as the stores of materiel kept in arsenals and depots under central subordination.

The present article examines only the maneuvering of the formations and field forces carried out by Hq SHC.

1. "Voyennaya strategiya" [Military Strategy], Moscow, Voyenizdat, 1963, p 155.
2. See: "Nachalnyy period voyny" [The Initial Period of War], Moscow, Voyenizdat, 1974, p 211.
3. TsAMO SSSR [Central Archives of the USSR Ministry of Defense], folio 48A, inv. 1554, file 16, sheets 26-27, 30-31; folio 219, inv. 36549, file 1, sheets 23-25.
4. "Istoriya vtoroy mirovoy voyny 1939-1945" [History of World War II of 1939-1945], Moscow, Voyenizdat, Vol 5, 1975, pp 151, 157, 159, 169.

5. "Operatsii Sovetskikh Vooruzhennykh Sil v Velikoy Otechestvennoy voyno 1941-1945" [Operations of the Soviet Armed Forces in the Great Patriotic War of 1941-1945], Moscow, Voenizdat, Vol 1, 1958, pp 354-355.
6. "Istoriya vtoroy mirovoy...," Vol 4, 1975, pp 104, 107, 280, 281.
7. Ibid., p 289.
8. "Operatsii Sovetskikh Vooruzhennykh...," Vol 1, pp 450-451.
9. "Istoriya vtoroy mirovoy...," Vol 4, p 311.
10. VOYENNO-ISTORICHESKIY ZHURNAL, No 4, 1977, p 17.
11. "Istoriya vtoroy mirovoy...," Vol 5, pp 146-147.
12. "Sbornik boyevykh dokumentov Velikoy Otechestvennoy voyno" [Collection of Combat Documents of the Great Patriotic War], Moscow, Voenizdat, No. 37, 1957, p 226.
13. TsAMO, folio 132-A, inv. 2642, sheets 127-129.
14. "Sbornik boyevykh dokumentov...," No 37, p 226.
15. VOYENNO-ISTORICHESKIY ZHURNAL, No 11, 1966, p 56.
16. "Sbornik boyevykh dokumentov...," No 37, p 16.
17. "Istoriya vtoroy mirovoy...," Vol 5, p 212.
18. TsAMO, folio 48-A, inv. 2642, file 233, sheets 127-134.
19. VOYENNO-ISTORICHESKIY ZHURNAL, No 11, 1966, p 56.

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## ABILITY TO ACHIEVE SET GOAL -- A MAJOR QUALITY OF A MILITARY LEADER

Moscow VOYENNO-ISTORICHESKIY ZHURNAL in Russian No 3, Mar 86 (signed to press 21 Mar 86) pp 21-29

[Article by Hero of the Soviet Union, Army Gen P. N. Lashchenko; the article was written from the experience of the command and staff of the 60th Army; during the described period Lt Col P. N. Lashchenko was the chief of the operations section of the staff of the 60th Army]

[Text] V. I. Lenin and the CPSU have taught the leading cadres to skillfully surmount difficulties and obstacles and achieve the set goal in the assigned question. In responding to the complaint of a worker of the VSNKh [All-Russian Council of the National Economy] about red tape, V. I. Lenin wrote: "I cannot help but accuse you, too, of red tape... 'some ten times, seemingly, it was almost done,' you write. But the problem is that you did not once carry the thing out without the 'seemingly'..."

"This struggle is difficult, there is no doubt about it. But the difficult is not the impossible. You gave up, without fighting and without exhausting all means of the struggle." (1)

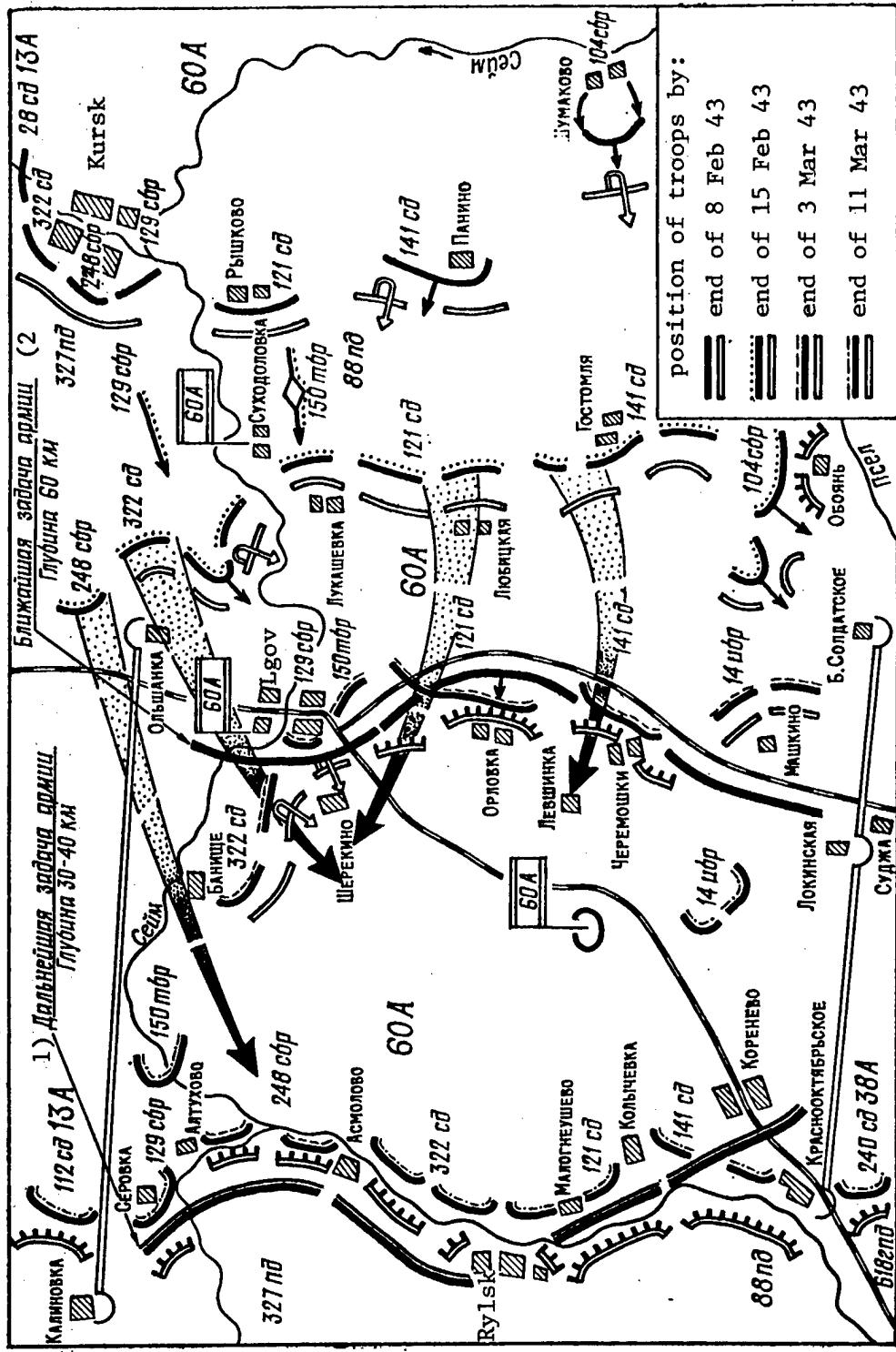
The demand of V. I. Lenin to do everything necessary to achieve the set goal applies fully to military personnel. In their service activities, the military leaders in peacetime and wartime daily solve a number of important and complex problems and the successful execution of these demands from them the ability to surmount difficulties and carry out the commenced question to its completion. This is possible only on the basis of high ideological and political conditioning, profound knowledge of military affairs and combat experience, great organizational capabilities and strong will, pedagogical skill, a significant straining of mental and physical forces and many other qualities of a military leader.

In the history of wars there have been numerous examples when some military leaders, in possessing the necessary superiority in men and weapons over the enemy, did not achieve the set goal and suffered a defeat while others (with an equal balance and even with fewer forces) successfully won a victory over the enemy. There are many reasons for victories and defeats, but an important one of these has been the art of the military chief who led the troops, organized and directed their efforts to carrying out the set missions.

"...Any engagement," emphasized V. I. Lenin, "includes the abstract possibility of defeat and there is no other means for reducing this possibility than the organized preparation of the engagement."(2) The experience of the Great Patriotic War fully confirmed Lenin's words. Victory in a battle, an engagement or an operation was largely achieved by careful organization and preparation of combat, by its all-round support and by carrying out effective party political work. Here of primary significance was the ability of the military chiefs to organize the constant cooperation of all the branches of troops, to creatively apply the principles of military art, to catch the enemy by surprise and to skillfully maneuver the men and weapons.

In line with this, of great interest is the fighting of the 60th Army of the Voronezh Front under the command of Lt Gen I. D. Chernyakhovskiy during the 1942-1943 winter campaign. During this period the army troops successively, without any halt, carried out three army-level offensive operations: the Voronezh, Kursk and Igov-Rylsk, having fully carried out the tasks set for them. During the period of the winter offensive, the army fought its way to the west more than 300 km, having liberated Voronezh, Shchigry, Tim, Kursk, Igov as well as more than a thousand villages and hamlets, it destroyed over 37,000 enemy soldiers and officers and captured 16,800. In advancing rapidly to the Seym River in the Rylsk area and digging in here, the army ensured that the troops on the right wing of the Voronezh Front would achieve the final goal in the Kharkov Offensive Operation. In the course of the offensive the army did not have significant superiority over the enemy in men and weapons. The victory was achieved by the skill and heroic efforts of all the personnel who, under the conditions of a harsh winter and lack of roads and fierce enemy resistance, showed exceptionally high moral-combat qualities, the capacity to endure enormous difficulties and a readiness for self-sacrifice in carrying out the set tasks.

A major contribution to the successful fighting of the 60th Army during the offensive operations of the winter of 1943 was made by the army commander, Lt Gen I. D. Chernyakhovskiy. In having sound operational-tactical training and rich combat experience and possessing a strong will and high organizational abilities, he was able in the course of the operations to effectively employ all the capabilities of the troops assigned to him, to surmount the existing difficulties, to carry out the decisions made and achieve the set goals. I. I. Chernyakhovskiy showed these qualities particularly clearly in the preparations for and conduct of the Igov-Rylsk Offensive Operation. Prior to its start, the army's formations and units had been fighting for around 20 days without a halt and in the course of this time had suffered significant losses. The number of men in the most battleworthy divisions did not exceed 3,500. The rifle regiments consisted of two battalions in which there were two companies each and the companies numbered 30-40 men each. Moreover, virtually all reinforcements had been taken away from the army for the front's reserve while a portion of the divisions had been transferred to other armies advancing on the Kharkov sector. Under these conditions, after the capturing of Kursk, a new task was set for the army: to launch an attack on the axis of Igov, Rylsk, to defeat the opposing enemy, to prevent the enemy from organizing a strong defense on the intermediate positions and to reach the line of Serovka, Rylsk, Korenevo (see the diagram).



The Lgov-Ryalsk Offensive Operation of the 60th Army (8 February-11 March 1943)

Key: 1--Farther task of army; depth 30-40 km  
2--Immediate task of army; depth of 60 km

In order to carry this out, it was essential to prepare and carry out a new offensive operation to a depth of around 100 km. Just 2 days were allowed to prepare for this. There were few forces. The achieving of the set goal required great effort on the part of the army commander, the army staff and all the personnel. How specifically was the ability of the army commander, Lt Gen I. D. Chernyakhovskiy manifested? First of all, it is essential to point out his desire to issue the combat mission to subordinates in a clear and precise manner, to focus the men and inspire them to carry out the mission. In beginning to prepare for the operation, the army commander held a conference which was attended by the military council members, the chiefs of the branches of troops, the services and sections of the army staff, the formation commanders and the chiefs of the political bodies. At the meeting, he summed up the results of the Kursk Operation and set out the tasks for the further advance. Here he particularly emphasized that regardless of the fatigue of the personnel, the great shortage of weapons, combat equipment, ammunition, fuel, food and other resources, it was essential to utilize the results achieved in the previous battles and in a short period of time, literally on the move, organize and resume a rapid offensive, to prevent the enemy from catching its breath, to bring up reserves and organize resistance on advantageous lines. If we, the army commander persuaded, make a halt, the enemy will use this for establishing strong defenses which we cannot surmount without a halt and then inevitably the front in our area will be stabilized for a long time and this is very disadvantageous for conducting the successive offensive operations. Under the conditions of a limited number of men and weapons, he pointed out, the enemy had to be defeated not by numbers but rather by ability, to maneuver more effectively, to skillfully shift efforts from one sector to another, to avoid frontal attacks against strongly fortified strongpoints and enemy positions, to rapidly outflank these and attack them from the flanks and rear. In conclusion the army commander emphasized that the faster we prepare for and go over to the offensive the more decisively the fighting is carried out, the more successfully we will execute the set combat mission.

Then the commander listened to the commanders of the divisions and brigades as they reported on the state of their subordinate troops. They all agreed fully with his analysis of the situation and on the conclusion for the need to develop the offensive without a halt, but at the same time urgently asked that immediate measures be taken to bring the units and formations up to strength in manpower and weapons. The commander informed the conference participants of the measures to man up the army and he demanded that all commanders quickly ready the formations and units to go over to the offensive. On the following day the troops were given written combat orders.

Of important significance in achieving the set goal was the ability of I. D. Chernyakhovskiy to adopt the most effective plan and organize and ensure its unswerving execution. The adopting of a plan was usually preceded by intense work in studying the situation and working out different variations of actions. In studying the enemy defenses and in analyzing the state of his troops and the position of adjacent units, he always determined the chief link and sought out and found the more rational methods of conducting the operation. For example, the overall concept of the commander for conducting the Lgov-Rylsk Offensive Operation was to launch the main thrust on the

general axis of Igov, Rylsk, in concentrating the main efforts in the center, and destroy the opposing enemy and come out on the line of Igov, Sudzha. Subsequently, the offensive was to be developed on the Rylsk sector, the approaching enemy reserves were to be defeated and the line of Serovka, Rylsk, Korenevo captured.

The army troops were to be organized in a single echelon. After the capture of Kursk, the operational configuration, in essence, remained unchanged and indeed there was no time to change it, as the army formations were preparing to conduct the new operation on the move, without an operational pause. Of course, the absence of a second echelon did not make it possible in the course of the operation to effectively increase the effort on the main sector. But, in adopting the plan for the operation, the army commander was guided by the fact that in the army's zone of advance the enemy had formed up its troops in a single echelon without even leaving any strong tactical reserves. In order to quickly crush its resistance and ensure a high rate of advance, it was essential to launch a sufficiently strong initial thrust. The second echelon was to be created in the form of a rifle division in the course of the operation, proceeding from the situation.

Preparations for the operation were carried out under the conditions of a significant lagging behind of the adjacent armies which at that time were engaged in fierce combat against superior enemy forces and were unable to provide a high rate of advance. As a result, there was the greater threat of the enemy launching strikes against the army's flanks. If one considers that the army had no second echelon, it is not hard to imagine the degree of risk and the army commander's boldness. However, the risk was based upon a careful analysis of the situation and a profound prediction of the development of combat in the course of the operation.

The army commander clearly formulated his overall concept and plan for the operation and with complete clarity explained this to the leadership of the field headquarters and the formation commanders. This made it possible to quickly plan for the operation, to effectively issue tasks to the executors as well as effectively help the subordinate commanders and staffs in preparing the troops for the offensive.

It is essential to point out that I. D. Chernyakhovskiy in his activities always relied skillfully on the deputies, the chiefs of the branches of troops and the army staff. He gave constant attention to the training and combat teamwork of the staff, he helped the staff workers to work effectively, with initiative and creativity and demanded that they clearly carry out their functional duties.

Even during the period of the defensive battles on the left bank of the Don, the army commander made a great effort to prepare the army staff to carry out the tasks in the offensive operations which, he was convinced, were not far off. And when the army, in January 1943, as part of the Voronezh Front went over to the offensive, the staff had become a dependable assistant for the commander in commanding and controlling the formations and units. By the start of the Igov-Rylsk Operation it was a well-coordinated combat collective. The staff officers had significantly increased their skills, they understood

the demands of the army commander and the chief of staff almost intuitively and skillfully ensured the carrying out of the decisions taken. A majority of them did not have to be reminded what had to be done or how, and themselves carried out their duties well, they showed reasonable initiative and creativity and made sound conclusions and proposals which the commander always listened closely to. The operational and combat documents were worked out by the staff in a maximum short time and were promptly issued to executors.

After the operation had been planned and the troops given the combat missions, the army staff (chief of staff, Col G. A. Ter-Gasparyan) concentrated its main efforts in providing help to the commanders of the divisions and brigades as well as to their staffs in preparing for combat.

The army commander gave great attention to work directly in the troops and demanded this also of his deputies, the chiefs of the branches of troops and services, the commanders of the formations and units. In knowing in what a difficult situation the troops were, the army commander and military council member Lt Gen A. I. Zaporozhets, as soon as the operation had been planned, visited the divisions and brigades. In working in the troops, the commander listened closely to the plans of the commanders for the forthcoming offensive, clarified arising questions as he heard the reports, and issued the necessary instructions for organizing cooperation, for supporting combat and for preparing the units. In 2 days he was able to visit virtually all the divisions and brigades and carry out great work in preparing the troops for the offensive. Lt Gen A. I. Zaporozhets and the chief of the army political section, Maj Gen K. N. Isayev, and the officers of the political section organized and conducted many measures to mobilize the personnel to carry out the set combat missions.

Usually the army commander worked out in detail all questions related to the organizing of cooperation and combat support. In preparing for the Igov-Rylsk Operation, he drew special attention for the chiefs of the branches of troops and services and the commanders of the formations and units to the continuous conducting of reconnaissance in the aim of determining the nature of the enemy's defenses, its strong and weak points and, above all, unoccupied and insufficiently fortified areas in order to use these for launching an attack in the flank and rear of the defending enemy groupings. The commander demanded that the basic efforts of reconnaissance be aimed at determining the system of the enemy's defenses to the north and south of Igov, particularly at detecting convenient sectors for the encirclement and destruction of its garrison.

In organizing cooperation, I. D. Chernyakhovskiy carefully coordinated the actions of the formations and units in breaking through the enemy defenses and in fighting in depth. In considering that the defenses were organized according to a system of strongly reinforced strongpoints with the presence of intervals not occupied by the troops and covered only by artillery fire, the army commander devoted chief attention to coordinating the actions of the troops advancing from the front and the troops maneuvering to attack the defending enemy in the flank and rear. Here he demanded that the commanders of the formations and units avoid routine in their actions and constantly seek out and employ new methods of fighting which were not yet known to the enemy.

Since the divisions and brigades did not have any close support tanks, the commander taught the unit commanders to move up the cannon artillery more boldly for direct laying and to quickly use the results of its firing for a decisive push forward.

I. D. Chernyakhovskiy always worked steadily to carry out the adopted plan, in skillfully employing all available resources for this. However, when the carrying out of a previously adopted plan involved great losses in men, materiel as well as time due to a changed situation, he adjusted the plan and the tasks for the troops. Here is one of the examples which clearly characterizes this quality of a military leader.

On 11 February, the army troops, after brief artillery softening up, resumed the offensive. Initially it developed successfully. In defeating the opposing forces, the army formations in 4 days had advanced from 35 to 45 km to the west and by the end of 15 February had reached the line of Olshanka, Lyubitskaya, Oboyan. Here, in bringing up reserves and relying on the strongpoints, the enemy put up stubborn resistance, constantly counterattacking our units with the forces from a battalion to an infantry regiment supported by artillery and tanks. Enemy aviation also increased its activities. Groups of three-five aircraft attacked the army's battle formations, the rears and railroad stations.

Since the advance of our troops had slowed down and on individual sectors they had halted and the threat arose of not carrying out the set mission, the army commander adjusted his initial plan, he carried out a partial regrouping of the army troops and set new tasks for the formations. The essence of the plan was as follows: With a portion of the army's forces, in advancing on Igov from the east, to tie down the main enemy grouping and to prevent it from maneuvering to other sectors; with the main forces consisting of the 248th sbr [rifle brigade], the 322d sd [rifle division] and the 129th sbr to launch an attack to the north of Igov and with the 121st sd and the 150th tbr [tank brigade] to the south of Igov, in the aim of a deep envelopment, encirclement and defeat of the Igov enemy grouping. Subsequently, to develop a rapid offensive on the Igov, Rylsk axis. The 141st sd, having regrouped the main forces closer to its right flank, was to launch an attack on the Gastomlya, Levshinka axis. The 104th sbr received the mission of supporting the army left flank against possible enemy strikes.

This plan was based upon the bold maneuvering of men and weapons in outflanking the main enemy grouping, the coming out on the route of retreat, and then encirclement and subsequent defeat. The further course of the fighting confirmed the correctness of the plan adopted by the army commander. The enemy did not withstand the thrust and began to retreat. The army troops, overcoming stubborn enemy resistance and destroying and throwing its disseminated units back to the west, advanced 25-30 km, they liberated Igov and on 3 March by the end of the day had reached the line of Banishche, Sherekino, Orlovka, Cheremoshki, Mashkino. The greatest success had been achieved by the 248th sbr of Col I. A. Gusev fighting on the army right flank. It rapidly reached the Seym River to the north of Rylsk and crossed it without a halt on the sector of Altukhovo, Asmolovo. In the battles for Igov, more than 7,000 enemy officers and soldiers were destroyed and around 500 taken prisoner.

This was a major victory showing the maturity of the commander's generalship talent as well as the increased combat skill of the army personnel.

I. D. Chernyakhovskiy did not immediately master the art of bold maneuvering. Thus, he did not succeed in achieving all that he had intended in the battles around Voronezh in January 1943. Then the bold outflanking maneuver covered only certain enemy strongpoints. The army troops attacked a majority of them literally head-on. This was explained not only by the difficult weather conditions but also by the insufficient experience of the army commander and the commanders of the formations and units. Subsequently, the brilliant outflanking maneuver executed by the troops of the 60th Army in capturing Kursk brought its commander well-earned glory. For the successfully conducted Kursk Operation, I. D. Chernyakhovskiy was awarded the Order of Suvorov First Degree and given the rank of lieutenant general. Lt Gen A. I. Antonov who at this time was serving on the army staff reported to the Headquarters representative, MSU A. M. Vasilevskiy, that I. D. Chernyakhovskiy possessed high organizational talent, will power and exactingness and worked to achieve the unswerving and precise execution of his orders.(3)

In the course of fighting I. D. Chernyakhovskiy not only learned himself but also constantly taught military skill to subordinate commanders. He demanded from them a detailed knowledge of the opposing enemy, its strong and weak points not in general but in the specific combat so that it would be possible, making use of the vulnerable points, to defeat the enemy with minimum losses of one's own troops. He set an example of the careful analysis of the situation and a constant search for and use of the most effective procedures and methods of fighting. In those instances when the situation demanded, he personally supervised the actions of the commanders and troops and provided them with concrete help in organizing and conducting combat. Here I. D. Chernyakhovskiy was impatient with commanders who showed indecisiveness or slowness in carrying out the set tasks. He strictly pointed to the faults in such commanders and when necessary even removed them from the position held. He did this not in the heat of passion but rather after a careful study and analysis of the commander qualities of each man, the style of work, the gravity and consequences of the committed errors. Thus, during the period of the fighting for Igov, the commander of the 121st sd, Col M. V. Bushin, was removed from his position for unsatisfactory troop leadership. The problem was that this division in the army had been the best coordinated and battle-tempered formation but in the course of the operation carried out the tasks below its capabilities and had higher casualties than the other divisions which were engaged in fierce fighting. A careful analysis of the circumstances for its unsuccessful actions showed to the commander that the basic guilty party of this was Col M. V. Bushin who did not promptly take the required measures and did not show tenacity in carrying out the set task. Upon the insistence of I. D. Chernyakhovskiy, the army military council removed M. V. Bushin from the position held. Subsequently, the 121st sd under the command of Maj Gen I. I. Ladygin fought successfully in the most complex and tense situation.

The liberation of Igov and the reaching of the Seym River by the 248th sbr brought the army troops closer to carrying out the set mission, however they were still far from completing the operation. On 4-6 March the army's

offensive continued. During this time enemy aviation intensified its operations and constantly bombed the battle formations of our troops. On 6 March, the enemy counterattacked the formations fighting on the right wing of the army but was thrown back with great losses. In the existing situation the army commander ordered the temporary digging in on the achieved line, the bringing up of artillery and the delivery of ammunition and only after this to continue a decisive offensive. On 7 March, after a brief softening up, the army formations resumed the offensive and, overcoming stubborn enemy resistance, by the end of 11 March had reached the eastern bank of the Seym River. All attempts to cross the river and develop the offensive to the west were unsuccessful. The enemy using the arriving reserves was able to prepare a strong defense on the opposite bank. The commander ordered that they dig in on the achieved lines and prepare the troops for further offensive fighting. Thus ended the Igov-Rylsk Offensive Operation of the 60th Army.

In the course of the winter offensive, all the army personnel underwent good combat schooling. The soldiers, sergeants, officers and generals significantly increased their combat skill, they learned to conquer the enemy and achieve the set goal in combat and an operation. The Soviet soldiers surpassed the enemy in strength of morale, endurance, the capacity to tolerate hardships and deprivations related to the severe winter.

In indoctrinating the personnel in these qualities and high offensive drive a major role was played by the political workers of all categories, the party and Komsomol organizations.

The army commander took a most active part in organizing and conducting party political work. In possessing high party qualities, he instructed and indoctrinated the troops entrusted to him in following the decisions of the CPSU Central Committee and the Soviet government. Here he skillfully relied on the political bodies, the party and Komsomol organizations. I. V. Chernyakhovskiy always worked in close contact with the member of the military council and the chief of the army political section and also maintained a close professional tie with the chiefs of the formation political sections. As a rule, after adopting the plan for an operation, he set out in detail the tasks related to organizing and conducting party political work with the personnel. The army commander took an active part also in conducting the party and Komsomol meetings of the units and formations and often spoke at them on important questions. Usually in visiting the units and formations, he talked with the secretaries of the party and Komsomol organizations, he answered their questions and gave the necessary instructions on organizing and conducting party political work in the subunits.

I. D. Chernyakhovskiy showed respect, affection and paternal concern for the soldiers and officers whose difficult military service ultimately ensured the carrying out of any plan of a military leader and determined the outcome of an operation and engagement. In being in the subunits on the forward edge, on firing positions and at hospitals, without fail he spoke with the men, he showed an interest in support and their needs, he answered questions, he gave advice on how to fight better and awarded governmental decorations to the most outstanding.

I. D. Chernyakhovskiy was a well educated general: he had a profound knowledge of military affairs and constantly improved his professional skill; in possessing great organizational abilities and strong will, he developed a progressive and effective style of work needed by a military leader; he systematically instructed his subordinates in combat skill and showed paternal concern for them; by his outstanding activities he won irreproachable authority among his subordinates. In the course of the fighting, his orders, demands and advice were carried out with readiness and even zeal, although this often required the straining of all moral and physical forces.

The Igov-Rylsk Offensive Operation of the 60th Army has been little dealt with in Soviet military history literature but it is characteristic in the fact that it clearly shows how the generalship skill of Army Commander I. D. Chernyakhovskiy had grown. Later there would be other battles and engagements, and more complicated and vaster tasks would have to be solved, but this operation remains a vivid manifestation of his ability to achieve the set goal and, regardless of exceptionally difficult conditions, carry out the combat mission.

In conclusion I would like to say that there is nothing surprising in the fact that I. D. Chernyakhovskiy became an army general and was twice awarded the high title of Hero of the Soviet Union. During the Great Patriotic War he successively commanded a division, corps, an army and a front, and prepared and carried out many battles, army and front offensive operations in the course of which brilliant results were achieved.

The combat experience of Army Gen I. D. Chernyakhovskiy during the war years has not lost its timely significance under today's conditions and is worthy of being studied in detail by Soviet military leaders and employed in their activities.

#### FOOTNOTES

1. V. I. Lenin, PSS [Complete Collected Works], Vol 53, p 217.
2. Ibid., Vol 6, p 137.
3. A. A. Sharipov, "Chernyakhovskiy," Moscow, Molodaya gvardiya, 2d Edition, 1980, p 125.

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## CROSSING OF SOUTHERN BUG, VISTULA BY TANK CORPS WITHOUT HALTING

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[Article by Candidate of Historical Sciences, Docent, Col Yu. N. Sukhinin]

[Text] The achieving of continuous fighting and a high rate of advance in the operations of the Great Patriotic War depended largely upon the art of preparing and carrying out the crossing of water obstacles. In offensive operations, in pursuing the retreating enemy, the tank formations were usually the first to reach water obstacles, they crossed them without a halt and captured and then widened bridgeheads. Subsequently, as a rule, an offensive in depth was developed from these bridgeheads.

The crossing of the Southern Bug by the XVI Tank Corps from the 2d Tank Army in the Uman-Botosani Operation (Diagram 1). Having successfully completed the Korsun-Shevchenkovskiy Operation, formations from the 2d Tank Army of the Second Ukrainian Front continued the offensive to the west and on 9 March 1944 reached Uman. On the following day, in cooperation with formations from the 52d Tank Army and the 5th Guards Tank Army, they took the city by storm. In accord with the order received from the commander of the front, the commander of the 2d Tank Army, Lt Gen Tank Trps S. I. Bogdanov, gave the XVI Tank Corps (commander, Maj Gen Tank Trps I. V. Dubovoy) the mission of crossing the Southern Bug in the Dzhulinka region on 13 March and capturing a bridgehead on its western bank.

At the moment of receiving the mission, the enemy formations which had been defeated in previous battles were hurriedly retreating to the western bank of the Southern Bug. In retreating the enemy destroyed the existing permanent bridges. Along with others, the 60-ton bridge to the west of Dzhulinka was destroyed. However, according to the data of reconnaissance carried out in this area, its supports had survived. The XVI Tank Corps, simultaneously with crossing the river without a halt, had to rebuild the bridge and for this the 357th Army Combat Engineer Battalion was attached to the corps.(1)

During the night of 11 March, the corps commander took the decision to cross the Southern Bug to the north of Dzhulinka with the forward detachment, the 107th Tank Brigade reinforced with the corp self-propelled artillery. With the capturing of a bridgehead by the motorized infantry of the forward

detachment, on the morning of 13 March they were to support the work of the 357th Combat Engineer Battalion in rebuilding the destroyed bridge. In the cooperation instructions, the corps commander provided the procedure for the moving up of the corps to the river and supporting its crossing. The 357th Combat Engineer Battalion was to reach the river ahead of the main forces. Its subunits were to begin rebuilding the bridge even before the corps units had been concentrated in the Dzhulinka area. Preparations for the assault crossing were entrusted to the 107th Tank Brigade. For this purpose it was assigned a combat engineer platoon consisting of a combat engineer battalion and different types of boats. The boats were also to be employed for the crossing of the motorized rifle subunits of the main forces. Along with this rafts were to be employed for crossing the river. These were prepared by the forces of the corps combat engineer battalion. The transporting of the rafts to the water obstacle was assigned to the motorized rifle brigade of the corps.

Diagram 1. The Crossing of the Southern Bug by the XVI Tank Corps

The employment of the corps' existing weapons was also subordinate to the successful crossing of the Southern Bug. Its artillery regiment was to be deployed in firing positions for supporting the crossing of the main forces. Subsequently the weapons were to be moved across behind the tanks and SAU [self-propelled artillery mount] over the erected bridge. For repelling a possible air strike, the antiaircraft artillery from the 172d corps antiaircraft artillery regiment was distributed to the entire depth of the column of main forces and upon reaching the water's edge was to take up positions in the Dzhulinka area.

In parallel with the organizing of the move, work was underway to fuel the combat and transport vehicles and resupply the formations with ammunition. Virtually over the entire preparations for the crossing, party political work was carried out actively and during this the leading role was played by popularizing the experience of the successful crossing of water obstacles by tank and mechanized troops in previous battles.

The move of the forward detachment up to the river started at 0600 hours on 11 March. Without encountering enemy resistance, the 107th Tank Brigade by the end of the day had reached Dzhulinka and captured it. Using darkness, a company of submachine gunners on previously prepared rafts crossed to the opposite bank, it drove the enemy subunits out of the population point of Berezki-Bershadskiye and by the morning of 13 March had captured a bridgehead 0.5 km along the front and 0.3 km in depth. The brigade's main forces supported the company of submachine gunners by tank firing from the eastern bank. By this time the main forces of the corps were concentrated in the Dzhulinka area.

Using an assault crossing, by the end of 12 March the Southern Bug had been crossed by the 15th Motorized Rifle Brigade of the Corps. Simultaneously the combat engineer subunits of the 357th Engineer Battalion and the corps combat engineer battalion had rebuilt the roadway of the permanent 60-ton bridge. During 13 March, the bridge was crossed by tanks and artillery of the XVI and then the III Tank Corps of the 2d Tank Army.(2)

Along with holding the captured bridgehead, the question of widening it was also settled. In the course of the fighting which developed on 13 March, the motorized rifle troops, supported by tank and artillery fire, drove off all attempts by the enemy 34th Infantry Division to eliminate it. At mid-day, after a brief artillery intense shelling, the brigades of the XVI Tank Corps went over to the offensive. As a result, the enemy infantry units retreated to the area of Chapayevka. By the end of 13 March the corps had widened the captured bridgehead to 20 km along the front and 10 km in depth.(3) Subsequently, the formations of the 2d Tank Army launched an attack from it on the Yampol axis.

The XVI Tank Corps crossed the Southern Bug quickly. Some 18-20 hours was the elapsed time from the start of the crossing by the submachine gunner company of the 107th Tank Brigade to the crossing of the tanks and SAU to the opposite bank of the river. The successful crossing of the Southern Bug by the XVI Tank Corps without a halt was determined by the careful and thorough organization of the crossing, initially ahead of time and then in the course of the fighting. This was expressed primarily in the clear determination of the order for reaching the water obstacle by the forward detachment and the main forces, by the specific choice of the crossing area, by the establishing of assault and bridge crossings, by the effective reinforcing of the forward detachment with the boats available in the corps by the early preparation of materials for building the rafts as well as in the resolving of questions related to fire and logistical support.

The experience of crossing water obstacles without a halt on the Right Bank Ukraine, and in particular the Southern Bug, was employed in subsequent offensive operations during the third period of the Great Patriotic War.

The crossing of the Vistula by the XI Guards Tank Corps of the 1st Guards Tank Army in the Iwow-Sandomierz Operation (Diagram 2). In the successful conclusion of the Iwow-Sandomierz Operation and in the capturing of a bridgehead on the western bank of the Vistula, a leading role was played by

the 1st Guards Tank Army. Preparations for the crossing of the Vistula were carried out in the course of the fighting. The 1st Guards Tank Army, having crossed the San River, by 28 July 1944 had come out in the area to the west of Lientownia, being some 70-80 km from the proposed crossing area. (4)

Diagram 2. Crossing of the Vistula by the XI Guards Tank Corps  
(29 July-3 August 1944)

In accord with the tank received from the commander of the First Ukrainian Front, the troops of the 1st Guards Tank Army were to cross the Vistula on a 12-km sector (Tarnobrzeg, Baranow), then capture a bridgehead and from it launch an attack to the north around Sandomierz from the west. Upon the decision of the army commander, Col Gen Tank Trps M. Ye. Katukov, the XI Guards Tank Corps of Lt Gen Tank Trps A. L. Getman was to advance in the first echelon on the right flank. Its formations were ordered, in pursuing the enemy, to reach the crossing area along two routes, keeping a forward detachment in the form of a reinforced tank brigade ahead. The mission for the brigade and the army forward detachment, the 6th Separate Motorcycle Regiment, cooperating with it included crossing the Vistula to the south of Tarnobrzeg and support the crossing of the water obstacle by the main forces of the corps. In the instructions to support the crossing of the river, the army commander assigned the XI Guards Tank Corps with the building of three crossings (one assault and two raft).

Having assessed the existing situation, the corps commander adopted a plan to bring the brigades up to the Vistula along two routes. The main thing in his plan was to count on a surprise crossing, the capturing of a bridgehead and the anticipating of the retreating enemy in reaching the crossing area. For this purpose the forward detachment of the corps, the 44th Guards Tank Brigade (commander, Col I. I. Gusakovskiy) with the 1454th Self-Propelled Artillery Brigade was to reach the Vistula over route No 1 and during the night of 30 July cross the river. For supporting the crossing of the river, the brigade was given several score folding boats from those existing in the corps

combat engineer battalion. With these a raft was to be built. The weapons (mortars) were to cross to the western bank after the seizing of the bridgehead and the digging in of the motorized rifle subunits on it. As a whole, the crossing of the river by the corps was to be carried out in 2 days, that is, by the morning of 1 August. (5)

Thus, the plan of the corps commander reflected such particular features as a detailed consideration of the existing situation on the approaches to the Vistula and in the crossing area as well as an effective reinforcing of the forward detachment with crossing equipment. In addition, the moving up of the corps main forces along two routes reduced the depth of their columns, it increased the speed at which the troops reached the river and created good conditions for achieving a surprise crossing.

Upon receiving the order for moving up, the forward detachment of the corps left the concentration area, as was already pointed out, over route No 1 (Lientownia, Machow). When the detachment reached the Vistula, its commander organized the defenses of the forthcoming crossing area while the artillery subunits took up their firing positions and prepared to support the motorized rifle troops assigned for the first assault across the river.

During the night of 29 July, the motorized rifle battalion of the brigade on fishing boats under enemy fire crossed the Vistula a half kilometer to the south of Tarnobrzeg. Then the remaining motorized rifle troops, individual guns and mortars of the 44th Guards Tank Brigade crossed on a raft built from wooden folding boats. Simultaneously to the south of Machow, a crossing was started on available equipment by subunits from the 6th Separate Motorcycle Regiment. Their success was largely aided by the reaching of Baranow by units from the 350th and 162d Rifle Divisions from the 13th Army and the start of their crossing of the river without a pause. By 0900 hours on 30 July, a bridgehead had been established on the western bank of some 4 km along the front and 1.5 km in depth. In the course of widening it, the motorized rifle subunits from the 44th Guards Tank Brigade together with the 6th Separate Motorcycle Regiment in the area of Swinjary repelled several counterattacks by subunits from the enemy 72d Infantry Division. Showing steadfastness on the defensive, they held the bridgehead and created good conditions for the crossing of the Vistula by the main forces of the XI Guards Tank Corps.

As was envisaged by the plan of the corps commander, at 1800 hours on 29 July, the main forces of the XI Guards Tank Corps began moving up to the Vistula along the two routes. The 134th Army Pontoon Battalion traveled ahead of the 40th and 45th Guards Tank Brigades. The absence of the enemy on the routes of approach to the river made it possible for the main forces to arrive in the crossing area by the morning of 30 July. However the crossing of the river without a halt was held up by the actions of the enemy located on the eastern bank of the Vistula to the north of the crossing area. Its infantry subunits which had concentrated in the Tarnobrzeg area undertook a number of counterattacks. Under the existing conditions the corps commander with a portion of the forces (40th Guards Tank Brigade) covered the crossing area from the north while the main forces continued the crossing. The subunits of the 134th Pontoon Battalion during the night of 31 July prepared two crossings to the south of Machow. A 30-ton raft was operating on each of these. They

were towed by landing boats. Using them, the 44th Guards Tank Brigade was the first to complete crossing all the materiel by 1500 hours on 31 July while the 45th Guards Tank Brigade had completed this by 0700 hours on 2 August. As a total 43 units of armored equipment had been moved across. (6)

Simultaneously with the crossing, the 40th Guards Tank Brigade successfully repelled the enemy counterattacks on the eastern bank of the Vistula. On 2 August it was replaced by the arriving rifle formations of the 13th Army. The XI Guards Tank Corps was fully concentrated on the bridgehead by the morning of 3 August. The motorized rifle battalions fighting on it and later the tank subunits by the end of 3 August had widened it to 12 km along the front and 7 km in depth. By this time, the VIII Guards Mechanized Corps was also concentrated here. (7) From here the 1st Guards Tank Army, as was envisaged in the overall concept of the front commander, launched an attack to the northwest around Sandomierz.

Thus, the successful crossing of the Southern Bug and the Vistula depended primarily upon its careful preparation. In the designated examples the questions of organizing the crossing were settled 1 or 2 days prior to the start of the crossing. Decisions were taken ahead of time, instructions were issued for the crossing of the rivers while the brigade and subunit commanders were given time for effective preparation for the crossing.

The methods of achieving surprise by the tank corps for crossing water obstacles without a halt have not lost their importance. In particular, rapid actions by the forward detachments made it possible to anticipate the enemy in reaching the crossing areas as well as to capture bridgeheads and hold them until the arrival of the main forces. A surprise crossing of water obstacles was achieved largely due to the use of nighttime.

Combat practice has affirmed that the results of crossing broad rivers without a halt were directly dependent upon engineer support and primarily upon the presence of regular crossing equipment. At the same time, with a lack or shortage of these, all available crossing equipment was widely employed. Moreover, the permanent bridges destroyed by the enemy were promptly rebuilt.

In the offensive operations of 1944, the main methods for reducing the time gap between the crossing of the rivers by forward detachments and the main forces were the inclusion of regular crossing equipment in the forward detachments and setting the best places for moving up to the water obstacle for the army pontoon battalions which were assigned to the corps. As a rule, the best place for them in the march formation was traveling behind the forward detachments but ahead of the main forces.

Also instructive is the experience of crossing with the simultaneous elimination of enemy attempts to thwart the crossing of a river by counterattacks, as occurred in the Tarnobrzeg area in the crossing of the Vistula by the XI Guards Tank Corps. Here they successfully employed such a method as repelling the counterattacks by a portion of the forces (by a tank brigade) with a simultaneous increase of the effort on the bridgehead by the main corps forces.

A profound study of the experience of crossing water obstacles by tank corps without a halt and its creative employment can provide substantial aid in organizing and carrying out a crossing by formations and units under present-day conditions.

FOOTNOTES

1. TsAMO SSSR [Central Archives of the USSR Ministry of Defense], folio 307, inv. 4148, file 229, sheet 61.
2. Ibid., file 223, sheets 142-148.
3. Ibid., folio 3414, inv. 56287, file 3, sheets 69-72.
4. Ibid., folio 299, inv. 37805, file 5, sheets 205-206.
5. Ibid., folio 3413, inv. 77591, file 2, sheets 108-110.
6. Ibid., folio 299, inv. 48803, file 1, sheets 271-272.
7. Ibid., inv. 76781, file 11, sheets 115-120.

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## WAYS TO ENSURE SURVIVAL OF CONTROL POSTS OF FRONT (ARMY) FROM EXPERIENCE OF GREAT PATRIOTIC WAR

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[Article by Doctor of Historical Science, Professor, Col R. M. Portugalskiy]

[Text] In the course of the Great Patriotic War, ensuring the survival of control posts of the operational field forces was one of the important problems in maintaining the stability of command and control over all types of troops in their combat activities.

During the years which preceded the war, the fundamental provisions related to achieving the survivability of control posts were reflected in a number of leading documents of those times. Basically these came down to the demands of locating the control posts on terrain ensuring their camouflaging and the organizing of defense, promptly shifting the location and establishing alternate command posts. As a whole these provisions were completely sound. At the same time, with the outbreak of the war a number of difficulties arose in their actual implementation. This was caused by a number of circumstances and primarily by the significant scope of enemy operations against the control posts, the communications centers and lines of the Soviet troops, by the highly fluid nature of the fighting and by the lack of experience in organizing dependable command and control. Thus, during the first hours of the war, six enemy air raids were made against the headquarters of the 3d Army of the Western Front and each raid involved 30-35 aircraft.(1) The advancing enemy tank and motorized troops also operated against the control posts. For example, on 25 June 1941, enemy tanks broke through into an area where the command post of the 13th Army of the Western Front was located. The headquarters lost over 30 percent of its officers in the battle against the tanks which had broken through.(2)

The enemy discovered the location of the control posts for the purpose of their subsequent attack by using all types of reconnaissance. Extensive use was made of direction finding, radio intercepts and the tapping of conversations carried over the wire communications lines.

The situation was greatly aggravated by the fact that the control posts were frequently located in population points, clustered together, they were poorly

camouflaged and were not equipped in engineer terms. Little attention was given to their security and defense. Alternate command posts were rarely prepared. The designated shortcomings were gradually eliminated and this was aided by the experience acquired by the commanders and staffs as well as the improvement in the material base of command. In the course of the war there were several ways for solving the problem of increasing the survivability of control posts.

The first was to spread out the control posts and their elements in the field and the prompt and organized movement of them in the course of the fighting. The experience of the initial period of the war showed the inadmissibility of establishing a single command post in a front (army) which was cumbersome and immobile due to the necessity of locating at it a large number of personnel (up to 400 men in an army and up to 900 in a front) as well as the very limited amount of motor transport. It was difficult to conceal it from enemy reconnaissance and hard to escape from enemy attacks. Considering this, from the autumn of 1941, when the field headquarters of a front (army) began to be separated into a command post (KP) and a second command echelon which carried out the functions of a rear control post (TPU). Somewhat later alternate command posts (ZKP) and observation posts (NP) began to be established. Already in October 1941, on the Western Front, for example, there were in operation two alternate command posts each of which had its own communications center.(3) By the start of the Ostrogozhsk-Rossoshani Operation (January 1943) on the Voronezh Front there were a KP (60 km from the breakthrough sector of the 40th Army), a VPU (30 km from the breakthrough sector of the 3d Tank Army), a ZKP (25 km from the KP) and a TPU.(4) From the summer of 1943, in the tank armies an operations group (OG) was often organized from the personnel of the command post and this consisted of 10-12 officers headed by the commander. Due to the echeloning of the control posts, it was difficult for the enemy to detect them, the degree of vulnerability of each of them was reduced and when necessary there could be the organized transmission of troop command and control from one control post to another. The mobility of the control posts was increased and as a result the stability of leadership over troop combat.

Starting with the winter of 1941-1942, to ensure less vulnerability from enemy actions, the elements of the command posts (the command group, communications center, the service group and others) began to be spread out in several areas in the field. The high- and medium-power radio transmitters were moved up to 1-3 km away from the KP. From the experience of the Western, Central and Voronezh Fronts, in the summer of 1943, the communications centers were set up 1-2 km from the main staff center. Here also the report collection points were set up. In order that the landing and taking off of the liaison aircraft did not give away the location of the control posts, the landing areas were prepared 3-5 km away.(5) The elements of the command post of a front (army) were spread out over an area which excluded their simultaneous hitting by an enemy air strike by a group of 9-12 aircraft.

Practice showed that the extended stay of the control posts at one point was the reason for their detection by the enemy and the launching of attacks against them by aviation and other means. Particularly indicative in this regard were the events which occurred on the Crimean Front in May 1942, when

as a result of a massed air strike against the command posts of the armies and front the location of which had not been changed for a long time and was well known to the enemy, troop command and control were significantly disrupted. (6) The experience of the first period of the war showed the necessity of more frequently changing the position of the control posts. Statistical data on the 20 front and more than 50 army operations indicated that in 1944-1945, the period the command posts remained at one point was shortened and began to be: 3-5 days for the fronts, 1-3 days for the all-arms armies and somewhat more than 1 day for the tank armies. (7)

The methods of moving the control posts in the course of fighting became more diversified. While in 1941-1942, due to the limited amount of communications equipment, this move was made most often in a single shift and subsequently in two moves with the preliminary deployment of a portion of the communications equipment at the new point. The staffs of the fronts and the armies, in preparing for an operation, began to work out special plans (diagrams) for the moving of the control posts and coordinated with the troop actions to the entire depth of the operation. From mid-1944, this practice was ratified in one of the General Staff directives. (8) Then it was the established rule that the position of the command posts would be moved only with the permission of the senior chief during the least intense periods of fighting. As a rule, a group of officers from the operations headquarters (section), signal and engineer troops, usually headed by the deputy chief of staff, would be sent to the new area. The command post would begin the move only when the signals equipment was ready to operate in the new area.

The mobile telegraph and telephone centers played an important role in providing communications during the move of the control posts and by mid-1943 these had been established in a majority of the staffs and armies.

The second way of ensuring the survivability of the control posts was to equip them with fortifications and carry out a range of camouflage measures. In the spring and summer of 1943, in preparing for the Kursk Defensive Operation, in a majority of the armies of the Voronezh and Central Fronts, the command posts were equipped in such a manner as to ensure their protection against direct hits by 105-150-mm artillery shells and 50-100-kg enemy bombs. (9) Dugouts and shelters were prepared for the personnel and special pits and ramps for the motor vehicles. There was a tendency to locate the control posts covertly outside of population points, predominantly in the forest a certain distance away from road junctions. (10) Regulation and available camouflage equipment was widely employed. Overall camouflage nets were set up at the control posts. Great attention was given to blackout measures. The wire communications lines running to the control posts were carefully concealed. Supervision over the execution of camouflage measures was strengthened. For example, the Commander of the Third Belorussian Front, Gen I. D. Chernyakhovskiy, constantly assigned special aircraft for testing the location and camouflaging of control posts. Shortcomings spotted from the air were immediately eliminated. (11) Only officials who had to know for performing their service duties were informed of the location of the control posts. It was prohibited to make various signs and inscriptions showing their location.

A number of measures were also taken to protect the communications centers and lines. Thus, the orders of the staff of the 3d Guards Tank Army of 3 February 1944 contained the demand "the communications centers are to be dug in with an obligatory dependable cover."(12) From the experience of the Vistula-Oder and Berlin Operations, such elements of the front and army communications centers were located in special shelters such as the call room of the military council, the Baudot equipment room as well as the TsTS [central telephone exchange]. Portable radios were concealed in dugouts.

The third way of ensuring the survivability of the control posts was to increase the reliability of their security and defense. This task was carried out by locating the control posts predominantly in areas with natural camouflage and covered by obstacles which were inaccessible for enemy tanks, by prompt detection and destruction of the enemy sabotage and reconnaissance groups as well as enemy troops remaining in the rear, and by organizing observation and defense against a surprise attack by enemy tanks and aviation. For security and defense of the control posts, the necessary men and weapons were assigned, warning signals were set in the eventuality of an enemy attack, the procedure was set out for actions according to the warnings and measures were also designated to fight fires, particularly if the control posts were in a forest. The plan for the security and defense of a command post was approved by the chief of staff and that of the rear control post by the chief of the rear or the chief of the rear staff. Direct security of the control posts was entrusted to the commandant and reconnaissance subunits. Sometimes subunits of the second echelons and reserves were employed. Certain officials from the staff as well as the crews of the command, staff and other vehicles were involved in carrying out these tasks. For organizing air defense for the control posts, antiaircraft artillery subunits were assigned (up to an antiaircraft artillery regiment for a front command post). Medium machine guns were readied to fire at low-flying aircraft and volley fire was planned. Air spotter posts were set up.

The fourth way was the strict carrying out of rules for the covert command and control of the troops. The intercepting of operational and tactical information by the enemy gave it an opportunity to establish the locations of the control posts and act against them. For this reason, the Directive of Hq SHC of 8 April 1943 particularly emphasized the demand placed on all levels of staffs to wage a decisive struggle against "chatterers" all conversations over the telephone and radio (with the exception of artillery commands, the reports of the spotter planes and command of the tank subunits in combat) were to be made exclusively employing the procedure charts and coded maps and the keys to the procedure tables would be changed at least once a day.(13)

At the control posts strict control was instituted over telephone calls and the number of persons allowed to make them was restricted. Greater responsibility was placed on the operations duty officers and the signals duty officers (Fourth Ukrainian Front, December 1944) for the secrecy of transmitting information.(14) Experience confirmed the high effectiveness of countering enemy radio reconnaissance by employing a different wave band, by setting up and operating duty networks and observing radio silence.

In the course of the war there was an acute need to plan ahead and organize measures not only to protect the control posts, the communications centers and lines but also to restore their dependable operation. Proceeding from this, in 1944-1945, the staffs of many field forces began to work out plans of measures to replace losses in command personnel as well as communications specialists and equipment. As a result, the tasks of restoring command were carried out more effectively and better.

The restoring of failed communications centers and lines was most often carried out by reserves. The communications equipment was also maneuvered. Reconstruction (emergency) teams were established as part of the signals squad (platoon). In the zone of the 13th Army in the course of the Vistula-Oder Operation, for example, 63 percent of the destroyed wire lines were rebuilt.(15) The carrying out of the tasks of quickly restoring breaks in the various types of communications (radio, wire, mobile) was also aided by the practice of their integrated employment, that is, the immediate switching to those which would provide the greatest effect under the specific situation.

Thus, the survivability of the control posts, as combat practice showed, was ensured by the carrying out on the part of the commanders, staffs and other command bodies of a range of measures aimed at carrying out two main tasks: their defense against enemy actions as well as rapid replacement in the event of the partial or complete breakdown of them.

For the practical training of staffs and troops, of particular significance is the experience gained in the early planning of the location and movement of the control posts, their security and defense as well as restoring operations on the basis of the integrated use of the available resources.

#### FOOTNOTES

1. TsAMO SSSR [Central Archives of the USSR Ministry of Defense], folio 208, inv. 255802, file 39, sheet 18.
2. Ibid., folio 361, inv. 36721, file 4, sheet 26.
3. See: "Voyennyye svyazisty v boyakh za Rodinu" [Signal Troops in the Battles for the Motherland], Moscow, Voenizdat, 1984, p 121.
4. "Sbornik voyenno-istoricheskikh materialov Velikoy Otechestvennoy voyny" [Collection of Military History Materials From the Great Patriotic War], Moscow, Voenizdat, No 9, 1953, p 42.
5. VOYENNO-ISTORICHESKIY ZHURNAL, No 3, 1978, p 20.
6. TsAMO, folio 132-A, inv. 2642, file 41, sheets 17-184.
7. See: P. P. Tovstukha, R. M. Portugalskiy, "Upravleniye voyskami v nastuplenii" [Command and Control of Troops on the Offensive], Moscow, Voenizdat, 1981, p 176.
8. TsAMO, folio 208, inv. 2617, file 10, sheet 237.

9. G. A. Koltunov, B. G. Solovyev, "Kurskaya bitva" [The Battle of Kursk], Moscow, Voyenizdat, 1970, p 62.
10. TsAMO, folio 213, inv. 203899, file 1, sheet 484.
11. VOYENNO-ISTORICHESKIY ZHURNAL, No 1, 1978, p 34.
12. TsAMO, folio 236, inv. 13009, file 7, sheet 13.
13. Ibid., folio 48, inv. 2, file 14, sheet 117.
14. Ibid., folio 244, inv. 85312, file 3, sheet 129.
15. Ibid., folio 361, inv. 6101, file 151, sheets 67-68.

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## ENGINEER SUPPORT OF FIRST BELORUSSIAN FRONT IN BERLIN OPERATION

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[Unattributed article published under the rubric: "Documents and Materials"; the article is adapted from the speech of Col Gen Engr Trps A. I. Proshlyakov given at a scientific conference held in April 1946 in the Group of Soviet Forces in Germany to study the Berlin Operation]

[Text] In April 1946, in the Group of Soviet Forces in Germany [GSVG], a conference was held on studying the Berlin Operation. Participating in its work were generals and senior officers of the GSVG, representatives of the General Staff, the military academies and the editorial staff of newspapers and magazines. At the conference reports were heard by generals and staff officers of the group, the chiefs of the branches of troops and services participating in this operation. Below we give the abridged text of the speech at the conference by Lt Gen Engr Trps A. I. Proshlyakov on the question of engineer support for the First Belorussian Front in the Berlin Operation.

\* \* \*

The terrain within the boundaries of the offensive of the front from the Oder to the Elbe with the numerous water barriers and forested areas contributed to the creation of a deep defensive by the enemy within a relatively short period of time. At the same time, its flatness and the presence of an extensive road network provided favorable conditions for our all-arms and tank formations and field forces to conduct the offensive. The significant number of water obstacles necessitated careful preparation for their crossing and a significant strengthening of the fighting troops with engineer forces and crossing equipment.

The Germans had begun to intensely establish defensive lines on the approaches to the German capital only in February 1945, that is, at the moment our troops reached the Oder. By the start of the Berlin Operation, the depth of the enemy defenses, including the fortifications of Berlin, reached 110 km. The system of its defenses included the main and second defensive lines, intermediate lines, the army rear defensive lines and the fortifications in the Berlin area. All the enemy's defensive zones and lines from the Oder to the Berlin fortifications were equipped only with field fortifications. The

strongpoint of all the defensive lines was their positioning on natural antitank obstacles and the presence in them of strongpoints and centers of resistance set up in towns and urban-type settlements with stone structures. The weak point in the engineer preparation of the enemy defenses was the absence of strong firing positions in the system of field fortifications and the insufficient mining of the terrain. The latter was employed widely only within the main defensive zone and on the remaining lines the mixed minefields were set only on highways and in narrows between lakes.

In preparing the immediate defenses of Berlin, as a consequence of the shortage of time, men and weapons, the planned amount of engineer work had not been fully carried out by the Nazis, however the city itself was sufficiently prepared for street fighting.

Characteristic of all the defensive zones and lines was the enemy's desire to establish a strong antitank defense by using in the defensive system the water obstacles and widely employing various man-made antitank obstacles (minefields, barriers, barricades, dragons' teeth, felled forests, pits and traps and so forth).

The tasks of engineer support during the operation were determined by the operational-strategic situation, by the nature of enemy defenses and the particular features of the theater of operations. Basically these came down to ensuring a high rate of breaking through the enemy tactical defensive zone, committing the mobile formations to the breakthrough for exploiting the success as well as the rapid advance and maneuvering of the troops in the operational depth.

In the first stage of the operation, during the period of preparing to breach the enemy's positional defenses, the main tasks of the engineer troops were: the organization and carrying out of engineer reconnaissance; supporting the crossing of the troops over the Oder; the preparation of the bridgeheads; engineer training of the troops; carrying out operational camouflage; preparing to pass the battle formations across the zone of our own and the enemy engineer obstacles.

In my brief report I am able to take up only the most important of these tasks, which are: the supporting of the crossing of the Oder and preparations to cross water obstacles in the course of the offensive; the preparation of the bridgeheads as the jump-off position for the offensive; operational camouflage; the passing of the troops through the zone of man-made obstacles.

It is perfectly apparent that the construction of bridges across the Oder for communicating with the bridgeheads and the preparation of the men and weapons to cross the water obstacles in the course of the offensive were the main tasks of engineer support in the preparatory period of the operation. In the concluding stage of the Warsaw-Poznan Operation, after the crossing of the Oder, contact with the bridgeheads was provided chiefly by assault and raft crossings. Construction of bridges in this period could not be carried out both due to the strong enemy fire resistance as well as due to the intense ice flow. This was carried out only after the passage of the ice and the widening of the bridgeheads.

Regardless of the continuous enemy fire resistance from land and the air, the front's engineer troops with the participation of the road and bridge units carried out a colossal amount of work. Involved in this were the army and front engineer units, the pontoon bridge battalions and the military construction detachments (a total of 13 pontoon bridge battalions, 27 engineer battalions and 6 military construction detachments). As a result, by the start of the offensive, for communicating with the bridgeheads across the Oder, some 27 bridges had been built with a total length of around 15 km, and 40 rafts (with a load capacity from 3 to 60 tons) had been assembled and prepared for operation; this made it possible to have one bridge 600 m long and one or two rafts as an average for every 4 km of river.

On the main sector, in the combat zones of the tank armies, for every 4 km of river there were two bridges with a total length of up to 1,200 m and three ferry rafts. In addition, for crossing canals and narrow ditches, in the tank armies they manufactured short-gap timber wheeled bridges figuring one bridge for every three tanks fighting as part of the forward detachments.

As a result of the widening of the bridgeheads, the organizing of air defense for the crossings, the initiating of work along a broad front and the carrying out of camouflage measures, it was possible to provide mass construction of bridges and this together with the preparation of a large amount of assault and raft crossing equipment, ensured good conditions for the advance of the troops of the front with any variations of starting the Berlin Operation.

The constructed bridges were repeatedly destroyed by enemy aviation, artillery and floating mines (more than 20 times at Goritz in the area of the 8th Guards Army) but each time were rebuilt. As a result the prepared crossings not only ensured the concentration of the troops and combat equipment at the bridgeheads at the designated times but also made it possible for the troops to widely maneuver.

The engineer preparation of the bridgeheads commenced almost immediately after their capture and continued as they were widened. The engineer measures to prepare the bridgeheads were carried out in the aim of deploying and protecting on them the personnel and weapons of the shock groupings of four all-arms armies assigned for the breakthrough; for bringing the infantry battle formations as close as possible to the objects of attack and for ensuring their covert maneuvering on the bridgeheads; for creating the best conditions for the concentration and subsequent fighting of the tanks and artillery. This aim was achieved by the building of fortifications in the field, as well as by carrying out road and bridge work and camouflage measures.

The fortification works on the bridgeheads (the digging of trenches and communications trenches, the building of firing positions, shelters, command posts and observation posts) were carried out extensively by the infantry under the leadership of the troop combat engineers even in the course of fighting to hold and widen them. All this work was done by the rifle troops which were on the bridgeheads and defending them. The new units, as a rule, were not involved in this work. As experience showed, such a method of

preparing for the breakthrough helped conceal the true intentions of the command from the enemy.

By the start of the offensive, some 636 km of trenches and communications trenches had been dug and this was 7 km of trenches and communications trenches per kilometer of front. In the trenches some 9,116 firing positions had been prepared for machine guns, mortars and antitank rifles. For the artillery 4,500 two-four gun positions had been built.

The terrain on the bridgeheads was a floodplain valley, in places swampy and heavily cut by drainage canals. For this reason the volume of road and bridge construction was significant on the bridgeheads. During the period of preparing to breach the enemy defenses, some 48 km of existing roads were prepared and reinforced; 24 km of new treadway and corduroy two-lane roads were built, and 112 small bridges on roads with a load capacity of 16-60 tons and a total length of 573 linear meters. As a result, by the start of the offensive, 25 routes had been prepared on the bridgeheads, including 10 routes for the two tank armies.

The overall concept of the command was to conceal from the enemy the concentration of personnel and combat equipment on the bridgeheads, to simulate the pullback of the tank formations from the front line as well as to camouflage the actual axis of the main thrust. According to the general plan approved by the front military council, the camouflage measures were to be carried out by all branches of troops. The engineer units provided instruction sessions for the other branches of troops and directly carried out the most difficult camouflage jobs.

In the regions of Warsaw and Minsk Mazowiecki Stations, some 16 trains were camouflaged on the way to the front with tanks and self-propelled guns. At Zantoch Station, 81 dummies of T-34 tanks and 39 dummy guns were made. One train a day with escort teams was sent from the front line to the region of Schneidemuhl carrying the camouflaged dummies. At Battsow, Sternberg and Topper Stations some 136 dummy tanks and 120 dummy guns were made. They were sent to the Gniezno region by two trains a day with guards.

Dummy tanks mounted on motor vehicles were moved across false crossings on the Oder (the Oderek--Grossen sector) located at the boundary of the First Belorussian and First Ukrainian Fronts for simulating the movement of our tank units from the Schwiebus area.

In order to mislead the enemy on the actual axis of the main thrust, the following measures were carried out. In the area of the 61st Army, the engineer units made and set up in the field the dummies of 106 tanks, 60 guns, 42 vehicles and 22 gasoline trucks. The concentration areas of the dummy equipment were brought alive by roaming guns which simulated registration fire. Simultaneously engineer reconnaissance on the Oder was intensely feigned and the bringing up of crossing equipment and the preparation of materials for building bridges were simulated. Analogous measures of preparing for a crossing were conducted on the southern bridgehead of the 33d Army.

For the camouflage work five engineer battalions, one camouflage company and one military construction detachment were employed. As a result the confused enemy began to strengthen the defenses on these sectors.

For ensuring the free maneuvering of our troops on the bridgeheads, all minefields located deep in the defenses were cleared prior to the offensive. Here around 33,000 mines were removed and blown up.

In the aims of supporting the reconnaissance in force conducted prior to the start of the general offensive, some 87 passages were built in our minefields ahead of the forward edge and in the enemy minefields. On the territory occupied as a result of the reconnaissance in force, routes and areas of firing positions were cleared and additional passages through the obstacles made. During the night of 16 April (on the eve of the general offensive), additional passages were made through the enemy obstacles on the new line.

All in all, 35 engineer (combat engineer) battalions and 1 minesweeper tank regiment were involved in building the passages. As an average per rifle battalion, 6-7 passages were made, 6-10 m wide and for every close support tank company there were 2 or 3 passages 15-30 m wide. As a total by the start of the general offensive, 340 passages had been built through our and enemy minefields. Here around 10,000 of our own mines were removed just in the passages while around 30,000 enemy mines were removed and detonated.

Prior to the start of the artillery softening up, all of the passages built in the minefields were additionally tested and marked. On them a commandant service was organized. All the concerned all-arms and tank commanders were familiarized ahead of time with the passages built in the field.

For the artillery escort, as a rule, special passages were not built but rather they used the passages made for the infantry and the tanks.

In breaching the defenses, the engineer troops fought in four echelons with the following missions. The first echelon of combat engineers fought in the battle formations of the forward rifle units and as part of the main forces of the rifle divisions. The combat engineers from this echelon were used for engineer reconnaissance, as obstacle clearing groups, groups for escorting the minesweeping tanks, the close support tanks and SAU and as part of the shock groups. This echelon also included the troop combat engineers. In addition, the divisions fighting on the sector of the main thrust were given up to one army or front engineer battalion as reinforcements.

The second combat engineer echelon fought behind the battle formations of the first echelon divisions of the rifle corps and was used to conduct engineer reconnaissance; for widening the previously made and building additional passages through enemy obstacles; for testing for mining, marking and repairing the routes; establishing crossings from TOE equipment; supporting the commitment of the mobile formations to the breakthrough; covering the boundaries and flanks of the advancing troops with the mixed minefield equipment of the POZ [mobile obstacle construction detachment]; strengthening the captured lines. Assigned to this were the front and army engineer units of the all-arms armies (one or two engineer battalions and one or two pontoon

bridge battalions) and the combat engineers from the tank armies also fought up to the line of overtaking the infantry, in backing up the all-arms combat engineers on the tank routes.

The third combat engineer echelon according to the plans of the chiefs of the engineer troops of the armies and the chief of the engineer troops of the front operated with the following missions: reconnaissance and mine-clearing of towns and large population points; the construction of the front and army command and observation posts; the rebuilding of bridges on highways and railroads; the destruction of enemy fortifications; the complete clearing of enemy minefields remaining in the rear of our troops. This echelon included army and front engineer units and military construction detachments (one or two engineer battalions and two or three military construction detachments).

The fourth combat engineer echelon included special-purpose units and the reserves of the chiefs of the engineer troops of the front and armies. It was employed in the course of the offensive in accord with the situation for carrying out special work or for relieving weakened units.

Such an echeloning of the combat engineers as determined by the tasks set for them proved effective in the Berlin and other offensive operations.

The use by the enemy of mixed minefields echeloned to a depth of 80-100 km demanded particularly careful work in reconnoitering and clearing the routes not only in the tactical enemy defensive zone but also in the operational depth right up to Berlin.

Suffice it to say that in the course of the offensive, during the period from 16 April through 7 May 1945, more than 6,000 km of road were reconnoitered and cleared of mines in the zone of the front. Here around 25,000 mines and more than 10,000 shells were removed and detonated.

The reconnaissance and clearing of the core routes were carried out to a width of 40 m by two echelons of combat engineers and for the army ones, to a width of 100 m by three echelons of combat engineers. The front routes were checked additionally by the military construction detachments and by the mine-seeking dog battalions with the bringing of the width of the cleared strip up to 200 m.

The reconnaissance and clearing of the cities and large population points (with the exception of Berlin) were carried out according to plans of the army chiefs of engineer troops. The mine-clearing of Berlin was carried out according to a special plan approved by the front military council. By the start of the offensive careful preparations had been carried out in the front and the engineer units assigned for this purpose were outfitted. They were trained to clear both conventional mines and booby traps as well as delayed-action mines. Overall leadership over the mine-clearing work was assigned to special staffs set up in each major town.

With the occupying of a town, officer reconnaissance was carried out for clarifying the scope and sequence of the work. After completing it the mine-clearing staff assigned the men and weapons to the individual areas and

sectors. Usually the mine-clearing work in a city was carried out in two stages. Initially they cleared the main streets, the buildings adjacent to them and bypass routes (for supporting the advance of the troops) and then objects which the enemy could have mined were investigated. In the second stage of the mine-clearing work they conducted reconnaissance and mine-clearing of the remaining streets, buildings and structures. Individual, particularly important objects (large public buildings, plants, factories) were subjected to a check for mining from two to five times by different mine-clearing crews.

In the population points where mining was insignificant, during the first stage of work reconnaissance was carried out only on the main city streets and all the streets and buildings used by the troops. Subsequently, the work was carried out only upon the request of the military commandants and the troop units.

During the period of the storming of Berlin, it was discovered that the demoralized German Command, in possessing a sufficient amount of mining equipment, was unable to concentrate the necessary number of engineer units in the city and, consequently, could not completely carry out its plans to create obstacles in buildings and open spaces. In the aims of guaranteeing the reconnaissance of the city for mining, the amount of planned work had to be carried out. This was done as follows: behind the forward units the liberated areas were reconnoitered and cleared. After the taking of a city, careful engineer reconnaissance of the entire territory was carried out and partial missions were carried out for reconnoitering and clearing particularly important installations (bridges, viaducts, public and state buildings, barracks and industrial enterprises).

In planning the engineer measures, great attention was given to preparing the men and equipment for the crossing of water obstacles. In the course of the offensive, the troop combat engineers with the assault crossing equipment and the army units with the light bridging trains (NLP, DLP, UBSA-3) supported the crossing of the water obstacles by the forward units. After the capturing of the bridgeheads, the army and front pontoon bridge units assembled rafts and put up floating bridges. Simultaneously, the combat engineer and pontoon bridge units as well as the military construction detachments built wooden bridges on rigid supports or rebuilt the destroyed ones.

After completing the construction of the new bridges or the rebuilding of destroyed ones on rigid supports, the floating bridges were disassembled and the crossing equipment moved forward for use on the following water obstacles.

In the all-arms armies, the engineer (pontoon bridge) units with the crossing trains, as a rule, were at the disposal of the chiefs of the army engineer troops and were used according to the situation for reinforcing the assault facilities and for erecting floating bridges. In the tank armies the pontoon bridge units with the bridging equipment were distributed over the corps fighting in the first echelon. One pontoon bridge battalion was kept in the reserve of the chief of the engineer troops of the field force. Such an employment of the crossing equipment provided an opportunity for the engineer chiefs to maneuver these depending upon the situation. However, there were

not enough pontoon bridge trains for deep echeloning. The shortage of crossing trains was particularly felt in the tank formations, where for ensuring a high rate of advance it was essential to leapfrog the floating bridges, without allowing a delay in moving up to the water obstacles.

The experience of the offensive of the troops in the Berlin Operation indicated that for engineer support of the crossing of water obstacles, the engineer forces and pontoon bridge trains had to be echeloned. In each rifle division operating on the main sector, it was essential to have at least one light bridging train; in a rifle corps at least one N2P pontoon bridge train. In the third echelon it was essential to have a N2P pontoon bridge train and an army reserve consisting of at least two trains (a pontoon and a light).

Engineer support for the storming of Berlin. The enemy had prepared the city carefully for street fighting. Each street, each block, the approaches to bridges and other important objects were barricaded and in individual instances mined. Many buildings had been adapted for defenses and dug-in tanks were located at street intersections. All of this as well as the network of rivers and canals in Berlin and on the approaches to it determined the nature of the engineer measures in storming the city. The engineer troops were confronted with two main groups of tasks: fighting as part of the shock groups and detachments and engineer support for the mobile troops (building passages in obstacles and buildings as well as a crossing over the Spree River and the canals).

In fighting as part of the shock groups and detachments, the combat engineers made passageways through obstacles, openings in walls and floors and undermined buildings. The manpack flamethrowers set the buildings afire and "smoked out" the enemy garrisons.

A shock group consisted of a reinforced rifle platoon, up to a squad of combat engineers and two or three flamethrower troops. In the shock detachments there were up to a platoon of combat engineers and one or two flamethrower squads. The combat engineer subunits which made up the shock groups and detachments were equipped with concentrated explosive charges weighing 5-10 kg (10-15 charges per combat engineer platoon), shaped charges, hand grenades and smokelaying equipment. In a number of instances they employed captured bazookas.

The flamethrower troops, in addition to manpack flamethrowers, were armed with smoke-release equipment and hand grenades. In the areas of the command posts of rifle battalions they established a supply of charged flamethrowers for replacing those with expended mixture.

The underground system of the city with the numerous large tunnels and storm drains convenient for the maneuvering of personnel made it possible to carry out forays in the rear and flanks of both the defending and advancing sides. In a number of instances the combat engineers had to blow up these structures in order to prevent the Nazis from maneuvering under ground.

Attention must be drawn to the carrying out of other, very important tasks by the engineer troops. In the course of the battles for the city, they shut

down the power plants and electric networks, they put out of commission water and sewage facilities, putting the German troops defending Berlin under extremely harsh conditions.

The manpack flamethrowers which had been employed in the battles for Poznan and Berlin proved to be an effective means of fighting in a city. Due to the restricted maneuvering in the city and the difficulties of approaching the buildings to be attacked to within a range of effective flamethrowing (40-60 m), the employment of flamethrowing tanks in the street battles was ineffective and led only to losses of them (particularly from tank hunters armed with bazookas).

The building of crossings to cross the Spree and the canals in the city was the most important task of engineer support for the storming of Berlin. Here the particular features were the strong coverage of the water obstacles by fire from city buildings and structures as well as the great height of the faced quays over the water level which impeded the erecting of floating bridges as well as the building of low-level wooden bridges. Under these conditions, the capturing of bridges across the water obstacles and the organizing of crossings in the shortest period of time were the most important tasks for the chiefs of all the branches of troops.

One should also note the experience of employing the amphibious boats for crossing the Spree and the Dahme. Thus, on 22 April 1945, in the region of Friedrichshagen an assault force crossed the Spree on 9 heavy James amphibious vehicles and 30 light amphibious vehicles and this consisted of a regiment from the XXIX Guards Rifle Corps which without a halt crossed the forested area in the area of Kopenick and after a brief fight for this population point reached the Dahme, crossed it and initiated battle for Adlershof. During the night of 24 April to the north of this area, the Spree was crossed on the same amphibious vehicles by the 74th Guards Rifle Division. As a result of the rapid and covert crossing of the Spree and Dahme Rivers, the enemy did not succeed in organizing serious resistance on these water obstacles and our troops, having taken Adlershof, moved forward successfully.

Thus, in the Berlin Operation during the period of preparing to break through the enemy defenses, under exceptionally difficult conditions the engineer troops built a sufficient number of bridges across the Oder, they prepared the bridgeheads for the offensive, they carried out all work related to operational camouflage and the appropriate engineer preparation of all branches of troops was carried out. During the period of breaking through the defenses, the troops crossed the enemy obstacle zones without significant losses in combat equipment while the 61st Army and the 1st Polish Army successfully crossed the Oder.

In the course of developing the offensive, regardless of the fact that a majority of the bridges on all highways and autobahns as well as in Berlin itself had been blown up, the engineer units ensured the advance and extensive maneuvering of the troops, including the mobile formations.

In the storming of cities and enemy strongpoints, the engineer units, in supporting the fighting of the branches of troops, fought effectively as part of the shock detachments and groups.

In summing up the experience of the war in engineer support for troop operations, it must also be recognized that the engineer troops with the existing weapons and equipment were not always capable of carrying out the missions on time, as the situation required, particularly with the rapid advance and sharp change in conditions on the battlefield. This shortcoming was particularly felt in supporting the mechanized and tank formations which are characterized by maneuvering, a high rate of advance and separation from the all-arms armies in the operational depth.

The TOE engineer weapons (crossing trains, mining and explosive equipment and equipment for crossing obstacles), due to the ever-greater mechanization of the Soviet Army requires further improvement. Without a positive solution to the given problem the engineer troops can be incapable of supporting the actions of the troops.

In the concluding stage of the war, the proportional amount of personnel in the engineer troops had risen to 12 percent. Regardless of this, the engineer troops were unable to carry out all the tasks of engineer support due to the great diversity and scope of these tasks. For carrying out simple and elementary engineer work the command was forced to use the infantry and other branches of troops.

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## OFFENSIVE OF 104TH RIFLE DIVISION ON ALAKURTTI SECTOR

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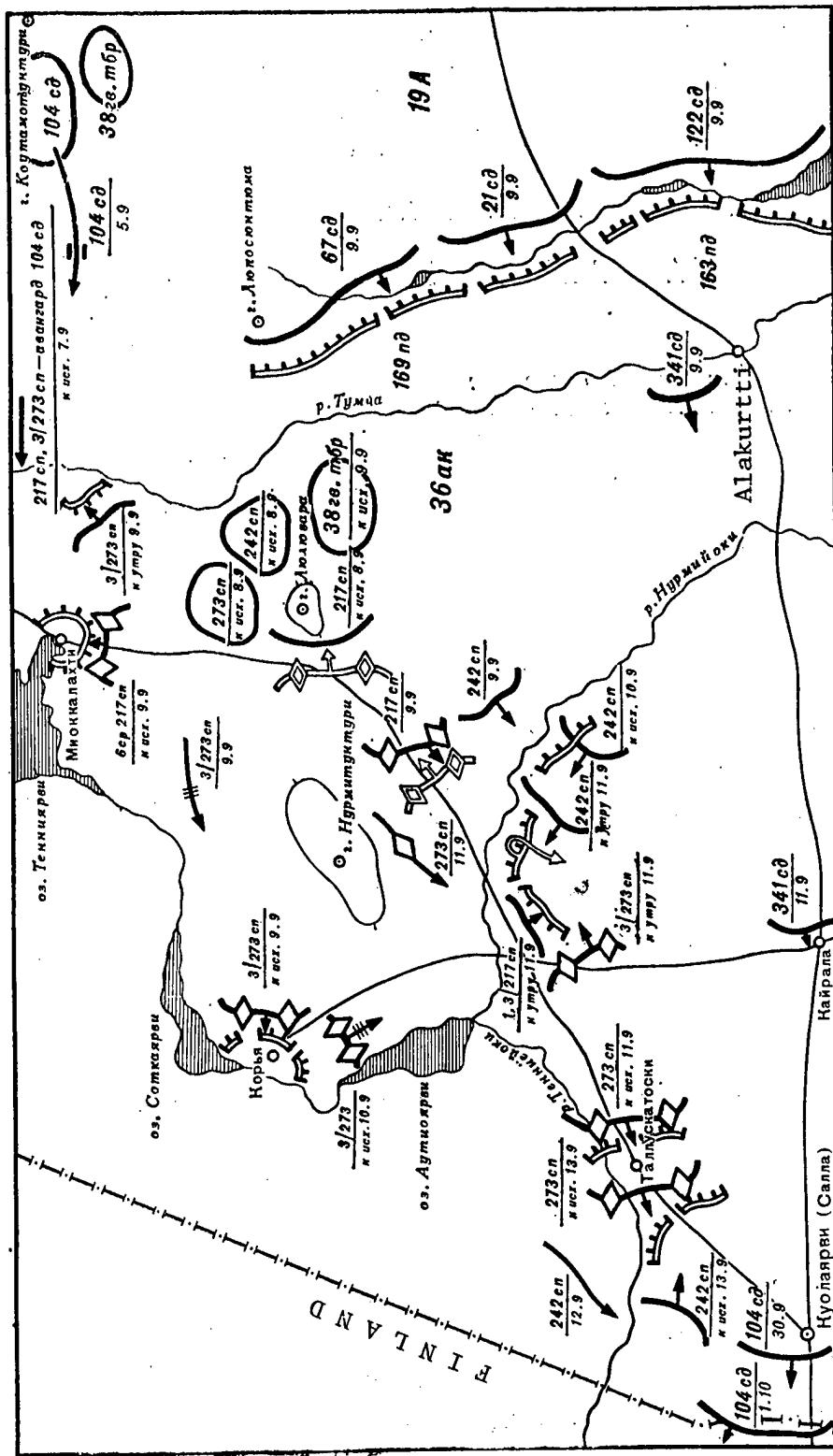
[Article by Lt Col (Ret) A. A. Sinkliner published under the rubric "Mastery and Heroism"; during the described period A. A. Sinkliner was a translator with the intelligence section of the division's staff]

[Text] In the summer of 1944, as a result of defeating the enemy on the Karelian Isthmus and in Southern Karelia, good conditions were created for liberating Northern Karelia and the Arctic. In accord with the plan for the operation by the Karelian Front of liberating Northern Karelia, an important role was assigned to the 19th Army (commander, Lt Gen G. K. Kozlov).

The 104th Rifle Division (commander, Maj Gen G. A. Zhukov) which was part of the army outflanking grouping received the mission, together with the 38th Guards Tank Brigade (commander, Col F. I. Konovalov) to advance from the area of the town of Koutamutunturi on the axis of Miokkalakhti, Kuolayarvi, to outflank the northern flank of the enemy Alakurtti grouping, to cut off the routes of retreat for the enemy 169th and 163d Infantry Divisions to the west and capture Kuolayarvi(1) (see the diagram).

The formation had to fight under the conditions of a forested-swampy terrain. For this reason, during the period of preparing for combat, the personnel in the exercises and drills learned to march over roadless land, to follow a compass and carry out an offensive in wooded and swampy areas, to cross rivers, and to seal off centers of resistance. On 29-30 August, there was a concluding exercise at which the readiness of the division for the offensive was checked.

On the eve of the offensive, the military council issued an appeal in which the soldiers of the army were urged to purge Northern Karelia of the Nazi invaders. Meetings were held in all the battalions. Officers from the division's political section (chief, Lt Col A. M. Taratynov) arrived in the units for providing help in organizing party political work. The press played an important role in mobilizing the personnel. The army and divisional newspapers regularly published materials telling about the liberation mission of the Soviet Army and bringing out the experience of the best soldiers.



Hosilities of the 104th Rifle Division (5 September - 1 October 1944)

On 5 September, the formation began its march. This was made over a single route. Ahead, under the cover of a rifle company and a battalion from the 290th Artillery Regiment, was the engineer support detachment, the 276th Combat Engineer Battalion, which conducted engineer reconnaissance and laid a column track across the wooded and swampy areas of terrain. In the vanguard was the 217th Rifle Regiment (commander, Lt Col F. F. Vermakov) with the 3d Battalion of the 273d Rifle Regiment. Following behind them were the main forces, the 273d Rifle Regiment (commander, Maj V. I. Bondar) without the 3d Battalion, the 242d Rifle Regiment (commander, Maj I. S. Utylyev) and the 290th Artillery Regiment (without a battalion). Then came the division's rear subunits.(2) The 38th Guards Tank Brigade began its march over the same route some 24 hours later.

The column of the 104th Rifle Division traveled night and day. Halts were brief. A portion of the personnel from the rifle units was assigned to artillery batteries in order to help the artillery troops pull out stuck vehicles and guns on the most difficult areas of the route. During the first day, the division traveled around 15 km and on the second 20 km. By the end of 7 September, the 217th Rifle Regiment had moved up to the Tumcha River.(3) The head battalion of the vanguard under the command of Maj V. M. Solomennov forced up to an infantry company of Nazis to retreat who were trying to check the regiment, and then began the crossing.

The width of the Tumcha is some 50 m and the banks are steep. In darkness, up to their chest in icy water, feeling their way over the stony bottom, the soldiers crossed the mountain river. They carried their weapons and packs, lifting them over their heads. The rapid current at times swept the soldiers off their feet and pulled them under. It was even harder with the weapons. They were lowered on ropes from the steep bank and by ropes were pulled across the river. One can imagine the hardness of this work if one considers that a regimental cannon weighed 900 kg.

It was particularly difficult for the combat engineers. During the night Sgts I. N. Zykov, M. P. Vekshin, Pfc's M. A. Veselov, F. N. Shkryabin and other men from the company under the command of Lt D. I. Surkov set the supports for a bridge across the Tumcha. In the morning, the Junkers attacked. They bombed the crossing but the combat engineers continued their work and completed the construction of the bridge, having carried out the set mission on time. Loaded vehicles and heavy artillery guns crossed the bridge.

On 8 September, by the end of the day, the vanguard 217th Rifle Regiment reached the Miokkalakhti--Kuolayarvi road and dug in in the area of Lyulyuvara. It was to hold the bridgehead, support the concentration and deployment of the division's main forces for a further offensive together with the 38th Guards Tank Brigade.(4)

By this time the forward subunits of the tank brigade had reached the Lyulyuvara area. The enemy support points remained in the rear of the 217th Rifle Regiment. The 6th Company of Sr Lt V. M. Koptev to which three tanks had been assigned was given the order of destroying the strongpoint in Miokkalakhti. Having coordinated the cooperation questions with the tank troops, in the evening of 9 September the subunit proceeded against

Miokkalakhti and attacked from the side of the road running there. The appearance of Soviet tanks caused confusion among the enemy soldiers and officers from the 2d Company of the 56th Mountain Rifle Battalion. Benefiting from this, the rifle troops increased the pressure. The soldiers fired on the Nazis at point-blank range and threw hand grenades at them. The communist, Sr Sgt M. N. Nechayev destroyed around 10 Nazis, including an officer, while the machine gun platoon of Lt N. I. Nushin destroyed around 30 Nazis. The enemy subunit was destroyed. Our soldiers captured 3 cannons, a large amount of rifles, and 3 dumps with ammunition, food and clothing. The submachine gunner F. M. Kleyerov particularly distinguished himself. When in the course of the attack the sergeant was wounded, the 22-year-old soldier assumed command of the squad and confidently led it into battle.

By the morning of 9 September, the 3d Battalion of the 273d Rifle Regiment (commander, Maj R. A. Grinev) by a surprise attack defeated the 2d Company of the 234th Reserve Battalion in a strongpoint on the western bank of the Tumcha and captured equipment and documents.

By the end of the day this subunit, having made a difficult march over roadless land and having been reinforced by a tank company from the 38th Guards Tank Brigade, reached Korya. The enemy garrison, frightened by the appearance of our tanks and by the defeat of its troops in Miokkalakhti and on the Tumcha, after a short battle hurriedly retreated into the forest.

The advance of the units from the 104th Rifle Division and the other formations of the 19th Army to a depth of more than 50 km was a surprise for the Nazi Command. The former Chief of Staff of the 20th Mountain Army, Lt Gen G. Helter in his book "Army in the Arctic" in 1953 wrote: "It was unlikely, but the Russians threw their main forces at the most dangerous envelopment for us from the north...they crossed the Tuntsu River, put up a bridge and came out on the Salla-Korya road (the Miokkalakhti--Kuolayarvi road.--Editors), and this distance was covered not only by the infantry, the cart and pack transport but also by T-34 tanks."(5)

On 9 September, the 217th Rifle Regiment was counterattacked to the southwest of Lyulyuvara by the 2d Battalion of the 378th Infantry Regiment and the 234th Reconnaissance Squadron with tank support. The rifle platoon of Sr Lt V. S. Koptyakov and the antitank rifle platoon of Lt A. I. Tikhomirov took up a position by the road to Kuolayarvi. Two enemy tanks soon appeared along with up to two platoons of enemy infantry. The antitank troops destroyed one of the tanks and the machine gunners caused losses in the enemy infantry. The Nazis retreated. They undertook a new attack with the support of four tanks but it was also successfully driven off.

In the evening of the same day, the 217th and 242d Rifle Regiments, upon the orders of the divisional commander, continued the offensive. The 217th Regiment with five tanks advanced along the Miokkalakhti--Kuolayarvi road. The 242d Rifle Regiment, advancing along the left side of the road, on 10 September by the end of the day crossed the Nurmiyoki River, it defeated the 3d Battalion of the 278th Infantry Regiment which had additionally been shifted here and came out in the enemy rear for a joint offensive with the 217th Regiment which by this time in the course of stubborn battles had thrown

the enemy back to the western bank of the Nurmiyoki River. There the enemy subunits took up the positions which had been previously prepared by them.

Maj V. N. Mogilevskiy who now headed the 217th Rifle Regiment sent the 1st and 3d Battalions around this center of resistance. After the combat engineers had made passages through the minefields, the regiment's subunits crossed the river and by the morning of 11 September came out in the enemy flank from the north.

The machine gunners from the 3d Company, Sr Sgts V. Ye. Khaustov and P. O. Bogdanov, were among the first in the regiment to cross the Nurmiyoki. An enemy gun opened fire against the company. The machine gunners outflanked the German crew and destroyed it. Then Khaustov and Bogdanov turned around an enemy cannon and hit the Nazi infantry and then neutralized an enemy mortar. (6)

Simultaneously from the south the center of resistance on the western bank of the Nurmiyoki was attacked by the 242d Rifle Regiment. In the aim of encircling and defeating the enemy in this area, Maj Gen G. A. Zhukov during the evening of 10 September ordered the 3d Battalion of the 273d Rifle Regiment to come out in the rear and cut off the Nazi escape route to Talluskatoski.

Having started the march from Korya during the night of 11 September, the battalion of Maj R. A. Grinev crossed a forested area and reached the Nurmiyoki River. It was essential to cross covertly and the Nazis had dug trenches not far off. It was dangerous to fell trees for building a crossing. Then the soldiers from the platoon of Lt G. F. Gusev carefully disassembled an abandoned house and put up a crossing from the timbers. Having crossed the river, the 3d Battalion of the 273d Regiment by the morning of 11 September reached the center of resistance from the side of the Miokkalakhti--Talluskatoski road.

The enemy (a portion of the subunits from the 278th Infantry Regiment, the 230th Reserve and 56th Mountain-Chasseur Battalions, the 234th Reconnaissance Squadron) in the morning of the same day attacked by the 217th and 242d Regiments from two sides, was half surrounded and forced to begin retreating back to Talluskatoski, but was met by the battalion of R. A. Grinev. The Nazis, abandoning their weapons and equipment, in separate groups tried to retreat back through the forest to the road to Talluskatoski.

Upon the order of the formation's commander, the 273d Rifle Regiment (without a rifle battalion) which had been in the reserve in the Lyulyuvara area began to pursue the enemy and was supported by 15 tanks from the 38th Guards Tank Brigade. The assault force on the tanks moved along the road to Talluskatoski. The enemy put up resistance. For supporting its retreating subunits, it moved up two companies from the 379th Infantry Regiment, but was unable to halt the advancing troops. The infantry and tanks, having broken through the three intermediate defensive lines, on 11 September by the end of the day reached Talluskatoski. (7)

The carrying out of the first part of the task set for the 104th Rifle Division and 38th Guards Tank Brigade ended with the outflanking maneuver.

For defeating the enemy in Talluskatoski, the division's commander on 12 September sent the 242d Rifle Regiment against the rear of this center of resistance. Having made an outflanking movement from the north over the rocky ridges and peat bogs and having forded the Tenniyeyoki River, the regiment reached the designated area. The escape route to Kuolayarvi was cut for the Nazis. During the evening of 13 September, Talluskatoski was attacked from the front by the 273d Rifle Regiment and from the rear by the 242d and after a stubborn fight the Soviet soldiers captured the population point. (8)

On 30 September, the 104th Rifle Division entered Kuolayarvi and on 1 October reached the state frontier with Finland. In the course of the battles in September, the formation had defeated an infantry regiment and five separate enemy battalions, including a tank battalion. (9)

For skillful actions and for courage shown, many men from the formation received governmental decorations. The commander of the 104th Rifle Division, Maj Gen G. A. Zhukov, received the Order of the Red Banner.

#### FOOTNOTES

1. TsAMO SSSR [Central Archives of the USSR Ministry of Defense], folio 1289, inv. 1, file 94, sheet 15.
2. Ibid., folio 372, inv. 6562, file 184a, sheets 151-153.
3. Ibid., sheets 153-155, 181.
4. Ibid., sheet 158.
5. "Sbornik voyenno-istoricheskikh materialov Velikoy Otechestvennoy voyny" [Collection of Military History Materials From the Great Patriotic War], Moscow, Voenizdat, No 16, 1955, pp 51-52.
6. TsAMO, folio 372, inv. 6563, file 14, sheet 68.
7. Ibid., inv. 6562, file 184a, sheet 163.
8. Ibid., folio 1289, inv. 1, file 92, sheets 241-242.
9. Ibid., folio 372, inv. 6562, file 184a, sheets 163, 175.

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## SIXTY-FIVE YEARS OF MONGOLIAN PEOPLE'S ARMY

Moscow VOYENNO-ISTORICHESKIY ZHURNAL in Russian No 3, Mar 86 (signed to press 21 Mar 86) pp 54-61

[Article by Maj Gen R. Gunchin-ISH, military and air force attache at the Mongolian Embassy in the USSR and published under the rubric "In the Armies of the Socialist Countries"]

[Text] On 18 March 1986, the Mongolian people and their armed defenders celebrate the 65th anniversary of the Mongolian People's Army [MPA]. The jubilee celebrations will be held on the eve of the 19th Congress of our party [the Mongolian People's Revolutionary Party], the 65th anniversary of the Mongolian People's Revolution as well as the 65th anniversary of the day of establishing friendly relations between Mongolia and the USSR.

Founded by the Mongolian People's Revolutionary Party [MPRP] in the flames of revolution, the MPA has dependably defended the historical victories of the republic's workers, the state frontiers, the liberty and independence of the Mongolian people.

Over the 65 years of its existence, the MPA has followed a glorious path of struggle and victories. From small, scattered partisan cavalry detachments it has grown into a modern professional army which is a component part of the armed forces of the fraternal socialist countries.

The Great October Socialist Revolution created a completely new situation in the Far East, it fundamentally altered the international status of Mongolia and played a crucial role in its further development. Under the influence of the revolution, the struggle of the arat [village, peasant] masses against the local feudal lords and foreign capitalists grew stronger. The most aware and progressive representatives of the Mongolian people and ordinary arats began to follow the example of the workers and peasants of the Soviet republic.

In fearing the loss of power, the Mongolian ruling upper clique committed treason, having agreed in the autumn of 1919 to the nation's occupation by Chinese troops. The result of this was the abrogation of the government, the disarming of the army and the establishing of power by the Chinese militarists. Long-suffering Mongolia, after winning autonomy in 1911, was again under the heel of foreign invaders. The Japanese military was

endeavoring again through the hands of the Chinese militarists to turn the nation into its own military strategic staging area for anti-Soviet purposes. (1) With the invasion of the Chinese forces, the already disastrous situation of the people took a turn for the worse. In October 1920, Inner Mongolia which occupied an important strategic position was captured by units of Baron Ungern, a pawn of Japanese militarism. Having captured the Mongolian capital of Urgu (Ulan-Bator) in February 1921, Ungern took into his own hands complete military political power in the nation. Mongolia was occupied simultaneously by Chinese militarists and the White Guard bands.

In this difficult and even tragic situation for Mongolia, on 1 March 1921, the first constituent congress of the Mongolian People's Party was held and it approved the party program, elected its Central Committee and established the main staff of the people's partisan troops. The congress adopted a decision to prepare for a nationwide armed insurrection, having assigned D. Sukhe-Bator to carry out the necessary work related to the organizational strengthening of the people's partisan troops.

On 13 March 1921, in Kyakhta a conference was held for the representatives of the Mongolian People's Party, the people's partisan troops and the local arats and here the Provisional People's Government of Mongolia was formed. This was to prepare and lead the insurrection for liberty and national independence. The congress decision stated: "The aim of the armed insurrection of the people is, in the first place, the liberation of the motherland from the yoke of the Chinese militarists and to purge it of other invaders who have entered its territory and, secondly, to establish a government capable of defending the interests of the Mongolian people and developing its culture." (2)

The most important task confronting the party during the period of preparing for the armed insurrection was the establishing of its own armed forces which would not only take an active part in the insurrection but also would be capable of defending the revolutionary victories. The Provisional People's Government united the partisan detachments into a regular army. On the basis of the detachments four cavalry regiments were organized and these were headed by the talented commanders emerging from the ranks of the partisans: B. Puntsag, O. Tserendorzh, Ts. Khas-Bator and Z. Bazarsad.

The MPP [Mongolian People's Party] Central Committee and the Provisional People's Government adopted the decision to liberate the Mongolian town of Maymachen (now Altan-Bulak), where around 10,000 Chinese soldiers were concentrated. Its capture would make it possible to establish an important strongpoint on Mongolian territory for the further development of the armed insurrection. In addition, Maymachen which was close to the frontier with Soviet Russia was the most convenient population point for obtaining aid from the Soviet nation.

In the morning of 18 March 1922, the fighting started between the Mongolian regiments and the troops of the Chinese militarists. This ended only at night with the complete victory of the Mongolian revolutionary troops over the superior, well-armed enemy forces. In honor of this event, upon a decision of the Presidium of the Mongolian Lesser Hural, 18 March is celebrated as the birthday of the MPA.

The defeat of the occupying troops in Maymachen was the signal for armed insurrection which developed into a struggle of all the people to expel the foreign invaders. Thus commenced the anti-imperialist and antifeudal Mongolian People's Revolution of 1921.

By a decision of a joint session of the MPP Central Committee and the Provisional Government of 24 March 1921, the task was set of completely liberating the nation, establishing a revolutionary regime on the liberated territory and further strengthening the People's Army. There commenced a mobilization of all young men who had reached the age of 19. The main branch of troops of the MPA, the cavalry, was given an organizational structure of: squadron--regiment--brigade--division.(3)

Regardless of this, the sides were unequal in strength. The Ungern army was superior both in personnel as well as weapons and supplies. It was manned by experienced officers. An enormous territory was under the control of the White Guards and due to this they could maneuver. In this context the Provisional People's Government on 10 April 1921 turned to the Soviet government with a request for providing military aid in the struggle against the common enemy of the Russian White Guards supported by the Japanese militarists. The Soviet government granted this request. An expeditionary corps of the Red Army was sent into Mongolia.

On 25 May, units of the People's Army under the command of Sukhe-Bator engaged in combat the Ungern troops in the region of Altan-Bulak and defeated a detachment of the confederate Baron Bayar-Gun. Subsequently, as a result of the powerful strikes by the Red Army units which arrived to help the Mongolian people, the Ungern troops were defeated everywhere. The young MPA led by D. Sukhe-Bator and Kh. Choybalsan fought heroically in the defeat of the common enemy of the Mongolian and Soviet peoples.

The victory predetermined the success of the revolution. There began a mass influx of volunteers into the ranks of the revolutionary troops and the number of arat partisan formations increased which joined the struggle against the White Guards.

The entry of the Red Army units into Mongolia fundamentally altered the balance of forces in the nation in favor of the revolution. The revolutionary struggle of the arat masses was intensified and the forces of reaction were paralyzed. The fraternal friendship of the Mongolian and Soviet peoples was strengthened in the joint struggle of the Red Army units and the young MPA against the White Guard bands.

On 28 June, there was a joint session of the MPP Central Committee and the Provisional People's Government. Participating in it were representatives from the command of the expeditionary corps of the Red Army. The session adopted a decision on fraternal collaboration in the commenced liberation campaign of the Soviet and Mongolian troops.

The Mongolian people joyously welcomed the revolutionary troops. The worker arats, in learning of the approach of the Soviet and Mongolian revolutionary

troops, established partisan groups and engaged the White Guards. On 6 July 1921, the forward detachments of the revolutionary troops of D. Sukhe-Bator and the 2d Cavalry Brigade of the People's Revolutionary Army of the Far Eastern Republic entered Urgu, and 2 days later the Provisional People's Government and the party Central Committee arrived here with the main forces of the army. The capital's population ardently welcomed the Mongolian and Soviet troops.

On 10 July 1921, the permanent people's government was formed.(4) Sukhe-Bator was appointed the commander-in-chief and the military minister and Kh. Choybalsan was his deputy. The people's government on 12 July 1921 turned to the RSFSR government with a request to leave Soviet troops in Mongolia until the final elimination of the White Guard bands. On 10 August 1921, the Soviet government agreed to this.

Units of the People's Army under the command of Kh. Choybalsan together with the Soviet troops began an offensive against Ungern's main forces which had succeeded in breaking out of the encirclement and retreating to the northwestern Soviet frontiers. On 24 July 1921, the Ungern and Rezukhin bands entered the RSFSR. On 5 August, Red Army units defeated the White Guards in the region of Goose Lake. Ungern with the remnants of his troops again moved back into Mongolia. Escaping from his own Cossacks, he fled but was apprehended by a Mongol detachment and turned over to the Red Army command.(5) The remnants of the Ungern and Rezukhin troops were partially defeated and in part they fled back into Northeast China. Thus, the eastern part of Mongolia was basically cleared of the White Guards. But the western part continued to remain in the hands of the White Guards. There detachments of Gen Bakich, Col Kazantsev, Capt Kaygorodov and other White Guard bands were active.

By the end of 1921, the Soviet and Mongol troops had completely cleared the nation of occupiers and had restored the power of the people's government on all Mongolian territory.

Led by the talented military leaders Sukhe-Bator, Choybalsan, Maksarzhav, Bumatsend and others, the young MPA, in acting in close combat cooperation with the Red Army, brought victory to its people. For success in leadership of the troops and for personal courage, by the Order of the RSFSR Revolutionary Military Council [RVS] of 10 January 1922, Sukhe-Bator, Choybalsan and Maksarzhav received the Order of the Red Banner.(6) Thus, combat collaboration between the Red Army and the MPA arose and was tempered in the hard fighting against common enemies.

In November 1921, in Moscow, on the occasion of the signing of an agreement between the Mongolian people's government and the RSFSR government on establishing friendly relations, a meeting was held between the Mongolian delegation headed by D. Sukhe-Bator and the leader of the world proletariat, V. I. Lenin.

After the victory of the People's Revolution, the MPP and the Mongolian people were confronted with the task of defending the revolutionary victories against the domestic reaction and foreign imperialists. The Third MPP Congress held in August 1924 was of great importance for further strengthening the army,

equipping it with new weapons and training and indoctrinating the personnel.(7)

The founding and development of the MPA were carried out with direct aid from the Soviet Union and its Armed Forces. Only together with the USSR Armed Forces could the MPA ensure the freedom and independence of the Mongolian state and guarantee its security.

In following Lenin's instructions on the defense of the socialist fatherland, the MPRP has shown constant concern for strengthening the nation's defense capability and for increasing the combat readiness and capability of the MPA. As a result of the measures adopted as well as the aid of the Soviet Union, our army at the beginning of the 1930's was turned into a regular army. An armored regiment, a signals regiment and an aviation regiment were incorporated as part of a cavalry division, other units and formations of different branches of troops were organized, new manuals and regulations were worked out and introduced, the political bodies were expanded and a precise system of training and indoctrinating the personnel was established.

The army has unswervingly carried out the assignments of the party and the people and has repeatedly rebuffed internal and external enemies. In the further strengthening of the nation's defense capability and in developing the MPA, an important role was played by the Protocol on Mutual Aid Between the USSR and Mongolia and signed in March 1936. In accord with this, in January 1937, when the real danger arose of a Japanese invasion of Mongolia, Red Army units and formations were sent there.(8)

At the end of 1938 and the start of 1939, direct preparations were started by the Kwantung Army to attack Mongolia. The Japanese Command concentrated on the frontier large number of ground forces and aviation as well as puppet troops of the Mongolian Prince Dewan (Inner Mongolia) and the state of Manchu-Kuo. In mid-January 1939, in the area of the Khalkhin-Gol River, the Japanese military commenced provocations. Over the first 3 months of the year alone, more than 30 violations of our frontier were carried out. Encouraged by the reactionary circles of the United States, England and France, Japan ignored all the peaceful initiatives of Mongolia and in May 1939 set out on a path of direct aggression in the area of the Khalkhin-Gol River.

In accord with the Protocol of 12 March 1936, the Soviet Union came to the aid of the fraternal country. Soviet and Mongolian troops engaged the invaders. In bloody battles lasting almost 4 months, they defeated the enemy head-on. Having defeated the Japanese invaders on Mongolian land in 1939, the Soviet Union demonstrated its loyalty to the treaties of mutual aid and carried out its international duty, having defended the honor, liberty and independence of the fraternal people.

During the hard years of the Great Patriotic War, Mongolia did what it could to help the Soviet people. Along with this the MPRP focused efforts on further developing the MPA. During the war years, more than one-half of the total state budget of the republic went to strengthen the nation's defense capability. The number of troops during these years increased by 3-4-fold, the number of fire arms rose by 5-fold, guns and mortars by 2-5-fold, aircraft

by 2-fold, armored vehicles and tanks by 1.5-fold. The personnel of the MPA trained constantly, using the rich experience of the Great Patriotic War. Together with the Soviet Army, our Armed Forces were in constant readiness to repel aggression in the Far East by militaristic Japan.

During the concluding stage of World War II, Mongolia, in participating in the fighting against the troops of militaristic Japan, honorably carried out its international duty. The Mongolian troops, in fighting as part of the horse-mechanized group of the Transbaykal Front under the command of Col Gen I. A. Pliyev, participated in defeating the enemy on the Dolonnor and Kalgan sectors. Thus, our army made a worthy contribution to establishing peace in Asia.

With the defeat of German Naziism and Japanese militarism, with the decisive contribution made by the Soviet Union, the balance of forces on the world scene changed fundamentally in favor of socialism. The world socialist system was formed. All of this created favorable conditions for accelerated socialist construction in Mongolia and further strengthened the material basis of the defense might of our nation and its Armed Forces.

The MPRP and the Mongolian government have consistently carried out a peace-loving foreign policy. At the same time, in recognizing the danger of the military preparations of the United States and its allies in the Far East, they have given particular attention to the defense of the socialist fatherland which is a component part of the world socialist system, and to strengthening our army: to improving its organizational structure, to equipping it with new types of modern weapons and combat equipment and to increasing combat might.

Due to the constant concern of the MPRP and the government as well as the fraternal aid from the USSR and the other socialist countries, the MPA is at present a modern army with all branches of ground forces, air forces and air defense troops. The ground forces which comprise the basis of the MPA are armed with modern artillery weapons and small arms, tanks, armored personnel carriers and self-propelled artillery mounts and have motor transport, communications equipment and military technical supplies. Our army also has modern jet aircraft and dependable air defense weapons. The MPA formations and units are equipped with training ranges and trainers.

The combat potential of the MPA is characterized not only by modern weapons and equipment. People always remain the crucial force and they should effectively employ the weapons entrusted to them. The further development of our society and increased prosperity and culture of the people have told positively upon the general education, professional and cultural level of the army personnel. While in the 1940's, serving basically in the army were herdsmen owning their own livestock and over 40 percent of whom were illiterate, while at present in its ranks are the representatives of the working class, the cooperative peasantry and the labor intelligentsia.

At present, over 80 percent of the officers have a higher and specialized secondary education obtained either in the homeland or in the Soviet Union. Year in and year out the officer corps is filled out with young officers who

have engineer and technical training. Over 78 percent of the officers are communists and members of the Komsomol. The personnel is rapidly mastering military affairs.

Party political work is assuming ever-greater significance in increasing combat readiness. This encompasses all spheres of life and activity of the MPA personnel, it has an active effect upon the awareness of the men, it rallies them around the MPRP and mobilizes them to carry out their responsible tasks. The army party and Komsomol organizations are a powerful force which unifies the troop collectives.

The MPA has great prestige among the people and its activities have been highly regarded by the MPRP leaders and the Mongolian government. Thus, the Accountability Report of the MPRP Central Committee to the 18th Party Congress pointed out: "...Our armed forces...in close alliance with the heroic Armed Forces of the Soviet Union and with their fraternal aid are securely defending the historic victories and peaceful creative labor of the Mongolian people."(9)

The General Secretary of the MPRP Central Committee, Comrade Zh. Batmunkh, at the Extraordinary Eighth Plenum of the MPRP Central Committee pointed out that "due to the constant concern of our party and government and to the selfless aid of the great Soviet Union, the defense capability of our nation is on the proper level." "The party Central Committee," he said, "has always given and will give important significance to increasing the combat and political training of the armed forces personnel, to strengthening party influence and to strengthening the Komsomol organizations among the army youth."(10)

The high praise given by the MPRP Central Committee to the activities of our armed forces and the new important tasks confronting them inspire the MPA personnel to achieve high indicators in combat and political training. In all the troop units and subunits, a socialist competition has developed widely to properly celebrate the 19th MPRP Congress which will set out new goals in the socialist construction of Mongolia. The historic decisions of the 27th CPSU Congress, have caused a surge of strength and creative energy in our people and the personnel of their army and they have followed the work of the congress with great interest and attention. The Accountability Report of the General Secretary of the CPSU Central Committee, M. S. Gorbachev, and the congress materials and decisions are being studied thoroughly everywhere.

The MPA in every possible way is widening and strengthening collaboration and cooperation with the fraternal armies of the Soviet Union and the other socialist countries. In recent years, our armies have exchanged military delegations, lecturers, journalists, army song and dance ensembles as well as periodic military literature. Each year the anniversaries of the friendly armies are celebrated, joint sports competitions, meetings and rallies to exchange experience are organized. Representatives of the MPA have been repeatedly present at the exercises of the Joint Armed Forces of the Warsaw Pact countries in the aim of acquiring the experience of their brothers in arms.

The men of the MPA, in being closely rallied around their home party and government will in the future, in an alliance with the armies of the fraternal socialist countries, honorably carry out their patriotic and international duty of defending their own motherland and the countries of the socialist commonwealth.

#### FOOTNOTES

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2. "Istoriya Mongolskoy Narodnoy Respubliki" [The History of the Mongolian People's Republic], 3d, Revised and Supplemented Edition, Moscow, Nauka, 1983, p 320.
3. "Boyevoye sodruzhestvo...", p 25.
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5. On 15 September 1921, Baron Ungern was tried by the court of the Extraordinary Tribunal of Siberia in Novosibirsk and executed.
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10. "Vneocherednoy VIII Plenum TsK MNRP" [The Extraordinary Eighth Plenum of the MPRP Central Committee], Ulan-Bator, Gosizdat MNR, 1984, p 12.

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## ELECTRONIC COMBAT IN LOCAL WARS IN NEAR EAST

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[Article by Candidate of Technical Sciences, Lt Col S. V. Seroshtan, published under the rubric "Local Wars"]

[Text] The experience of the Israeli-Arab wars indicates that electronic combat has become a major component of combat which substantially complements fire, attack and maneuver.

Israeli military specialists on the basis of analyzing the experience gained in local wars have worked out uniform principles for the organization and conduct of electronic combat. These are realized by working out new methods as well as by employing under combat conditions special equipment for support, electronic interference and destruction of the enemy electronic equipment.

Electronic combat was carried out with great intensity in the course of the combat operations of the air forces which played a major role in all the armed conflicts in the Near East.

In subsequent wars, Israeli aviation which previously had been unchallenged in the air began to encounter a serious rebuff from the Arab air defenses based upon modern surface-to-air missile complexes (SAM). The crossing of such air defenses without detecting the characteristics and subsequent destruction of the operation of their electronic equipment was an exceptionally complex thing. The losses of aggressor aircraft were rather high. This forced the Israeli Air Force Command to follow a path of increasing the activeness of electronic combat. By October 1973, around 30 percent of the manned aircraft and a large amount of the unmanned were equipped with devices for detecting and neutralizing the air defense electronic equipment.(1) However, in the course of the soon commenced war, not the Israeli but rather the Syrian and Egyptian aviation was able to disrupt the work of the enemy reconnaissance and control systems. Success came, on the one hand, from the skillful organization of the electronic combat measures by the Arabs and the precise coordinating of these with troop actions and, on the other, mistakes by the Israeli Air Force Command in predicting the electronic situation in the theater of operations.(2)

In summing up the results of the October 1973 war, foreign observers have concluded that the low effectiveness of measures to support electronic combat in the air forces combat operations led to the high losses of Israeli aircraft, particularly during the first days of the war. For this reason in the preparation for and in the course of the 1982 war, exceptionally great attention was given to reconnaissance of the Syrian electronic air force and air defense control systems and to detecting the parameters of the electronic equipment and their capability to provide protection against interference in the aim of determining specific measures to counteract them by electronic suppression equipment, homing and other weapons.

For carrying out these tasks, all the intelligence forces in organizational terms were unified by the Israeli Air Forces Command into a single system which included the ground units, the air subunits and the combat aircraft with special equipment on board. The ground units were to acquire reliable information on the organization of the air force and air defense control systems in the Arab states, the capability of the onboard electronic equipment of the aircraft, the SAMs, the control and guidance points, their parameters of emission and interference to jamming as well as information on the nature of air force activities. These tasks were carried out in close cooperation with the airborne electronic intelligence and combat subunits as well as the air forces combat units as can be seen, for example, from the fact that the Israeli fighters scrambled simultaneously (and even 1 or 2 minutes before) the take-off of the Syrian aircraft.

The Israeli Military Command established an intelligence and electronic suppression facility with permanent centers operating on the Golan Heights and mobile ones in South Lebanon.

For all elements of the air force electronic intelligence and suppression system, Israeli industry developed specialized automatic control equipment, reconnaissance and jamming equipment, as well as ground-, sea- and air-based missiles which homed on the radar emission. According to the data of the French magazine INTERNATIONAL DEFENSE, No 1 for 1982, the technical basis for the stationary and mobile air forces intelligence facilities were the EL/L-8312, EL/L-8320 and RAS-1a electronic intelligence facilities which could analyze and process the radar signals in the entire frequency band of their operation.

The Israeli airborne intelligence and electronic combat subunits were confronted with the tasks of systematically observing the operation of the Arab electronic systems and air defense and air force equipment and determining the effectiveness of the Israeli strikes and the use of electronic combat equipment. For this purpose they employed Boeing-707s which were specially equipped with electronic equipment, helicopters as well as unmanned reconnaissance aircraft such as the Mastif and Scout carrying radio and optoelectronic intelligence equipment.(4)

In the course of preparing for and conducting the 1982 war, the Israeli Air Forces Command possessed reliable information on the electronic equipment and electronic systems for controlling the Syrian air defenses and air force. This made it possible for the aggressor with minimal losses in a short period

of time to win supremacy in the skies of Lebanon. During the preparatory period, the Israeli Air Force conducted reconnaissance on the positions of the SAM batteries, the emission parameters and operating modes of the Syrian SAM radars. On the basis of the reconnaissance results, the make-up of the support groups, the areas of their patrolling and the location of the jammers in the shock groups were determined. With the start of the aggression, having sharply increased the intensity of Israeli flights, particularly in the immediate proximity of the SAM impact zones in the first line of the Syrian air defense groupings, the Israelis ascertained the emission parameters and the operating conditions of the Syrian electronic equipment. Subsequently, the actions of the air and ground electronic combat forces were aimed at the final clarification of the objects of attack. For this purpose intensive flights were made by groups of attack and unmanned aircraft with brief passes through the SAM impact zones. Simultaneously all the air and ground electronic intelligence equipment monitored the emissions of the SAM radars and clarified information on the presence of antiaircraft equipment at the positions as well as their camouflaging. Their mission also included the monitoring of conversations in the control radio networks. Several minutes before making a strike, final reconnaissance was carried out using unmanned reconnaissance aircraft equipped with television reconnaissance devices. This made it possible for the Israelis to obtain intelligence information on a real time scale. (5)

Thus, the electronic support for combat operations of Israeli aviation, in being aimed at discovering the electronic systems for the control of the Syrian Air Force and air defense, in the estimates of foreign specialists, made it possible to secure data for disrupting enemy control and command and to a significant degree helped to increase the effectiveness of the other component of electronic combat, electronic countermeasures.

Beginning in 1967, in breaking through to objectives, the Israeli Air Force began to employ the massed jamming of the SAM radars before each individual attack and in leaving the area. Special forces were assigned for this. As jammers for covering the attack groups in zones which were up to 40 km away from the SAM radars they employed slow-speed aircraft of the Dakota type as well as specially equipped phantoms with electronic suppression pods which flew directly in the battle formations of the strike groups. Sometimes for creating jamming they also used ground and helicopter equipment. As a result of such actions, the SAMs of the Arab states in the war of 1967 suffered great losses and this was one of the reasons for the winning of unchallenged air supremacy by the Israeli Air Force.

In the October war of 1973, the ECM equipment and actions of the Israeli Air Force underwent further development. Many aircraft began carrying jammers for individual protection against the SAM radars and scramblers while a portion of the attack aircraft was armed with weapons for destroying the electronic equipment (the Shrike antiradar missiles and the Standart ARM [antiradar missile]), automatic dipole reflector releases, infrared dummy targets and other equipment. However, contrary to expectation the effectiveness of the jamming of the electronic equipment in a combat situation was very low. Thus, for example, according to data in the foreign press, the homing warheads of the Strela SAM did not respond to the emissions of the infrared dummy targets

while the Shrike antiradar missiles did not have sufficient range and for firing them the attack aircraft were forced to enter the SAM impact zone.(6) For these reasons during the first days of the war the Arab aviation and air defense weapons were able to destroy around 25 percent of the Israeli combat aircraft.(7) Such substantial losses demanded a change in the methods of employing Israeli aviation. In the battle formations of the strike groups they began to include air defense suppression groups and their actions were widely supported by the electronic reconnaissance and jamming aircraft. Here the interference was set by aircraft and helicopters operating from territory occupied by the Israeli troops as well as by unmanned electronic combat aircraft some 1.5-1 minutes before the approach of the strike groups. In accord with the "blind and neutralize" principle initially the electronic combat equipment neutralized the radars and then strikes were launched with antiradar missiles and bombs against the SAM positions and fighter aviation airfields and after this the attack was made on the set target. As has been pointed out in the foreign press, the designated measures made it possible at the end of the October war to reduce Israeli aviation losses by 3-fold.(8)

ECM underwent further development in the preparations for and during the course of the 1982 war. On 9 July, the Israelis carried out a range of measures covered by the concept "electronic combat." In the morning several groups of aircraft made intensive flights in immediate proximity to the boundaries of the SAM impact zones of the Syrian air defense grouping, simulating attacks against the installations. Simultaneously brief jamming was carried out against the surveillance radars, provoking the activation of the radars of all the SAM of the grouping. Then from areas over Israeli territory there began the mass setting of passive jamming in the aim of "blinding" the electronic detection equipment of the SAM on all bands. This was set in such a manner that the "clouds" of jamming would cover the combat area.(9) After clarifying the location of the air defense electronic equipment, under a cover of active jamming, an attack was launched against it with ground-based antiradar missiles as well as aviation missiles of the Shrike class.

Somewhat ahead of the entry of the attack aircraft into the SAM impact zones, the various electronic combat equipment was activated: from the Boeing-707 radio reconnaissance and electronic combat aircraft which were flying over the Mediterranean, from jamming aircraft located over Northern Lebanon and from the battle formations of the attack groups. These created interference not only for the SAM radars but also the radio networks for the control and tactical coordination of air defense as well as the ultrashort-wave radio networks for controlling Syrian aviation, that is, all the elements of the air defense control system in Lebanon. Thus, from the suppression of the individual electronic equipment, the aggressor shifted to an integrated impact upon the control system of the air defense grouping and the fighter aviation based upon precise coordination of actions and unified control and command of them.

By all types of intelligence of the Ground Forces, the Israeli Command long before the start of the war endeavored to obtain exhaustive information on the location and performance of the enemy electronic equipment and ECM devices. Thus, during the preparations for the aggression in 1967, Israeli intelligence

was able to discover the main state and military radio communications and detect the main wire communications lines on the Sinai Peninsula which was considered particularly important from the viewpoint of winning supremacy in the airwaves.

Subsequently, particularly after the 1973 war, the efforts of radio intelligence were aimed at detecting the radio networks for the control of the tactical element of Syrian troops, primarily the tank units. Here particular attention was given to establishing a system which would make it possible to obtain data on the electronic equipment for controlling troops and weapons, the processing of this data and the prompt reporting for decision taking. This was achieved by unifying the resources of the reconnaissance and electronic combat units, by the wide employment of unmanned reconnaissance aircraft of the Scout class which transmitted a television image of the positions of the Syrian and Palestinian troops and other objectives to the command posts, as well as by the unexpected employment for the Syrians of reconnaissance systems of the SOTAS type which employed the modern Israeli radars for observing the battlefield to a great depth. (10)

As the foreign specialists have pointed out, the system of electronic intelligence (ELINT) which has been specially developed on the basis of the intelligence units from the Headquarters for Military Security and Counterintelligence of the General Staff included stationary and mobile tactical centers as well as mobile ELINT subunits which were employed in Lebanon with the start of hostilities. The technical basis for the acquiring bodies of this system were automated reconnaissance and surveillance installations of radio and radio relay communications located on stationary and mobile objects. For an analysis of the intercepted signals and for processing the intelligence information, a high-speed computer was included as part of each facility.

In the 1982 war, electronic combat by the Israeli ground forces was carried out considering the gained experience. Above all, as was pointed out in the foreign press, they actually realized the idea of unifying the electronic combat and ECM resources into a single system and this made it possible with the rational use of the equipment to achieve a greater effect of electronic combat in the operations. Control in the system began to be carried out from special centers (posts) for the collection, analysis and comparison of all types of intelligence where, with the aid of computers, the electronic situation was recreated and target designations set for the suppression and destruction devices. This made it possible to launch attacks against the installations several minutes after an unmanned reconnaissance aircraft flew over them.

In the course of the hostilities the Israeli troops which were armed with special ECM facilities created frequency-specific interference for the radio communications of the Syrian ground forces in the short and ultra-short frequency bands. The interference of the ultra-shortwave radio communications on the tactical level was intense and massed. The effectiveness of the jamming of the shortwave band was achieved only in the air warning radio networks.

The ground ECM stations of the Israeli formations were located in the battle formations of the first echelon units. These created jamming briefly, only at moments when the commands or most important and urgent information were being broadcast to the Syrian troops. The jamming also was created immediately after the transmitting of false information in Arabic and this deprived the Syrians of the possibility to refute it. In the opinion of foreign specialists, the effectiveness of electronic combat was considered by the Israeli Command as directly dependent upon the effective and integrated employment of the resources involved in the measures to disrupt enemy troop command. The American and Israeli equipment making it possible to realize this demand was tested out in the course of hostilities in Lebanon.

The electronic combat equipment of the Israeli navy took a fix on the radar emissions of the Arab ships and the SAM radars covering the naval bases, and detected facilities of the command systems of troops fighting on the maritime sector. Thus, the positions and operating parameters for the radars of the Syrian SAM were detected prior to the launching of attacks against the Port of Latakia during the night of 7 October 1973. In the war of 1982, the electronic combat equipment detected a significant number of command posts of the Palestinian and Syrian troops fighting on the maritime sector.

The main missions of electronic combat in hostilities at sea were: to protect the ships against guided weapons by setting active and passive interference and using low-flying helicopters as dummy surface targets as well as ensuring concealment of the approach to the combat areas. For example, in the naval combat during the night of 7 October 1973, several Israeli missile launches and landing craft with complete radio silence, having followed a coastal route disguised as fishing vessels, approached the Syrian coast. Then, under the cover of the passive interference for the radars of the Syrian missile boats, they attacked in the area of Port Latakia. As a result, a torpedo boat and three missile boats were destroyed as well as a minesweeper. During the night of 9 October, five Israeli missile boats in combat against four Egyptian missile boats employed passive interference combined with maneuvering. Here they destroyed three boats, losing only one.(11) The Israeli boats, as a rule, did not close with the enemy which possessed long-range missiles but, in entering their impact zone, employed electronic combat equipment. Thus, by passive interference or by the maneuvering of dummy targets such as helicopters simulating the launches, they deflected all the missiles launched by the enemy and only after this closed with the target and destroyed it.

Thus, in the estimate of foreign specialists, electronic combat in the local wars in the Near East has been marked by intensity, by the mass use of diverse electronic equipment by the belligerents and has become one of the decisive factors for successful hostilities on land, at sea and particularly in the air.

#### FOOTNOTES

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4. See: ZARUBEZHNAYE VOYENNOYE OBOZRENIYE, No 11, 1982, pp 47-49.
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## ARTILLERY SUPPORT FOR INFANTRY, TANKS IN COMBAT IN DEPTH

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[Article by Candidate of Historical Sciences, Docent, Col V. A. Chernukhin, published under the rubric "Scientific Papers and Information"]

[Text] Along with artillery softening up and supporting the attack of the advancing troops, during the war years important significance was given to escorting the infantry and tanks in the combat deep in the enemy defenses. This started after the artillery support for the attack and was carried out in the aim of providing effective and continuous fire support in overcoming enemy resistance deep in the defenses. In maneuvering the fire and positions, the artillery escorted the infantry and tanks from one object to another during the entire period of the offensive.

During the prewar years, the artillery commanders and staffs mastered the methods and procedures for organizing and carrying out artillery softening up for the attack and to a lesser degree the support of the infantry and tank attack. The question of artillery support for the infantry and tanks with the development of combat deep in the enemy defenses had been studied significantly less. This was not properly reflected in the guidance documents. Their recommendations on the combat employment of artillery during this period of the offensive were of a general nature. Little attention was given to planning artillery fire against targets deep in the enemy defenses or organizing the fight against enemy artillery and other weapons during combat.

These shortcomings had a negative impact upon the organization of artillery support for the advancing troops deep in the enemy defenses during the first offensive operations of the Great Patriotic War. Infantry and tank actions were supported only by the fire of the support guns and the concentrated fire of individual artillery batteries and battalions when called in by the all-arms commanders. This led to the disruption of continuous support with artillery fire for the advancing units and subunits.

The Directive of Hq SHC of 10 January 1942 "On Actions By Assault Groups and an Artillery Offensive" and the Infantry Field Manual (BUP-42) published in 1942 played a major role in eliminating the flaws in organizing the artillery support for the infantry and tanks in fighting in depth. These documents were

a new step in developing the theory and practice of the combat employment of artillery on the offensive. They emphasized that the artillery should move along with the infantry and tanks during the entire period of the offensive, supporting them with continuous fire. For the first time in combat practice, artillery support for the advancing troops in fighting in depth was most fully realized in the counteroffensive at Stalingrad. As combat experience was gained, as the operational army received the necessary amount of artillery reconnaissance equipment, as the number of artillery and amount of ammunition in the troops rose and also as the mobility of the artillery systems increased, the organization and conduct of the third period of the artillery offensive were improved. In particular, artillery support for infantry and tanks, starting with the counteroffensive at Stalingrad, in a majority of instances began to be planned considering the data of all types of reconnaissance to the depth of the day's mission for the formation. The planning documents, as a rule, indicated the specific fire and tactical tasks for the artillery as well as the types of fire and the questions of the regrouping of artillery command as well as the time and sequence of shifting the artillery battle formations were taken up.

In the counteroffensive at Stalingrad, the artillery support for the infantry and tanks in fighting in depth was provided by the concentrated fire of the battalions, individual batteries and guns against targets preventing the advance of the troops and by calling in deliberate barrage and interdiction fire for repelling enemy counterattacks. (1) The basic mass of artillery with the development of combat in depth fought together with the rifle divisions. A portion of the army artillery groups and the rocket artillery groups was also turned over to the rifle divisions. Massed fire was also employed, albeit rarely. Thus, when in eliminating the enemy grouping surrounded at Stalingrad the formations of the 57th Army of the Don Front encountered strong enemy centers of resistance in the areas of Peschanki and Voropanovo Station, the fire of three and five regiments, respectively, from the 19th Artillery Division was concentrated against them. After heavy intense shelling the infantry and tanks broke into these population points and during fierce street battles defeated their garrisons. (2)

As the enemy defenses stiffened, as the depth of the defenses increased and the fire plan was improved, massed artillery fire against the major strongpoints and centers of resistance in fighting in depth began to be planned and employed on a broader scale. This was explained by the fact that the artillery weapons existing in the rifle regiments and battalions did not provide an opportunity to carry out the tasks of dependably neutralizing enemy installations. The acute need arose of planning massed fire for the period of combat in depth on the scale of the formations and field forces. Thus, in the Orel Operation (July 1943), the artillery staff of the 11th Guards Army planned massed fire to a depth of 10-12 km. Depending upon the size and importance of the targets, from 6 to 20 artillery battalions were involved in this.

In 1944, the most effective form of planning artillery fire was found in the aim of increasing effective fire damage to the enemy in developing combat in depth. Instead of numerous individual areas of concentrated fire they began planning massed fire against individual areas to a depth of 15 km and more.

Such areas included, as a rule, important strongpoints, centers of resistance, artillery deployment areas, the concentration of reserves and population points. Such planning for the period of artillery support was carried out for the first time in the preparations for the Lwow-Sandomierz Operation. (3) The conduct of massed fire by areas made it possible more effectively and in a shorter period of time to organize artillery actions in a rapidly changing situation deep in the enemy defenses and simplified target designation and control of artillery fire.

In planning artillery support for infantry and tanks during combat in depth, a diagram was worked out for massing the fire (see Diagram 1) and a table which gave the men and weapons to be used in the massed fire. The experience of the offensive operations of the First Belorussian and First Ukrainian Fronts in 1944-1945 showed that the massing of fire on the divisional scale usually involved the divisional artillery and a portion of the artillery from the regimental artillery groups (up to 5-8 battalions); in the corps there was the corps artillery and a portion of the artillery battalions from the divisional and regimental artillery groups (up to 10-12 battalions); in the armies, the army, corps and divisional artillery groups (up to 15-18 battalions). (4) Thus, on 12 January 1945, in the course of the Vistula-Oder Operation, upon the decision of the commander of the CII Rifle Corps of the 13th Army, the formation's artillery commander provided massed fire by 12 artillery battalions against a strong enemy center of resistance to the south of Smykow. After intense shelling the units of the 121st and 172d Rifle Divisions successfully took the center of resistance. (5) In individual instances even artillery breakthrough corps were employed fully for massed fire. For example, in the Berlin Operation on 16 April 1945, upon the order of the commander of the 13th Army, the commander of the X Artillery Breakthrough Corps, Lt Gen Art L. I. Kozhukhov, made a series of massed strikes by the artillery of the entire corps (up to 20 battalions) against the Borsdorf strongly fortified enemy point which was located in the zone of advance. As a result, the enemy garrison on the defensive here was shattered. Our troops successfully carried out the mission. (6)

The above-given examples show that the carrying out of previously planned massed artillery fire against major installations of enemy defenses, in being combined with air strikes, helped to achieve high effectiveness of fire damage to the enemy, maximum utilization of artillery capabilities and a significant shortening of the time to carry out the fire tasks. Moreover, the pace of breaching enemy defenses was increased, although in 1944-1945, the defenses were much stronger than in the first and second periods of the war.

Of great importance for improving the organization of massed artillery fire with the development of fighting deep in the enemy defenses was the incorporation of a headquarters battalion with communications equipment in the TOE of the artillery staff of the front. This substantially influenced the greater opportunities of the front artillery commanders for centralized (when necessary) command and control over the artillery assigned to them with the massing of its fire. For example, in the course of the Berlin Operation for supporting the storming of Spremberg (Diagram 2) and for defeating the Nazi grouping located in it, some 14 artillery brigades were employed from the 5th Guards and 13th Armies of the First Ukrainian Front. In employing the

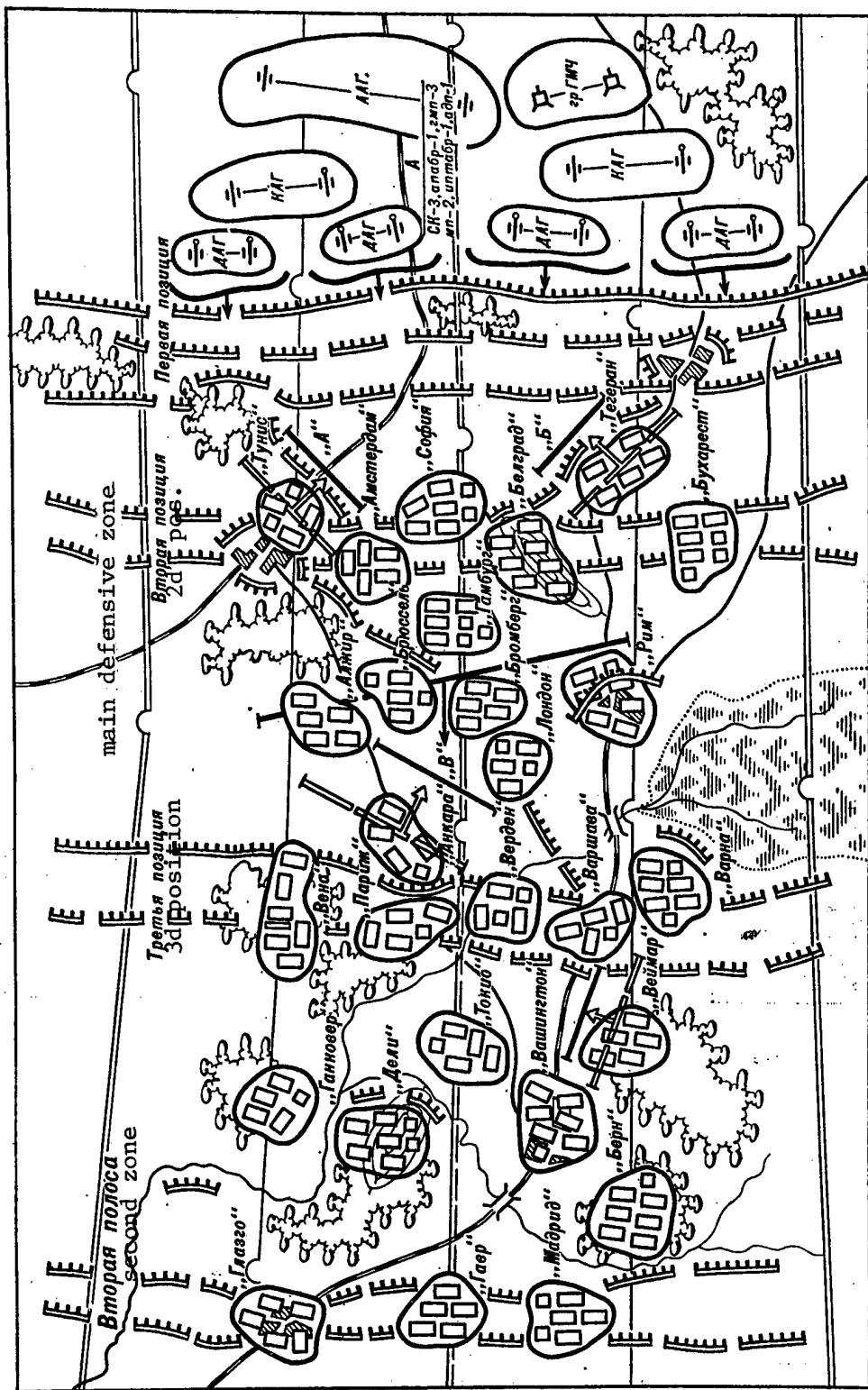
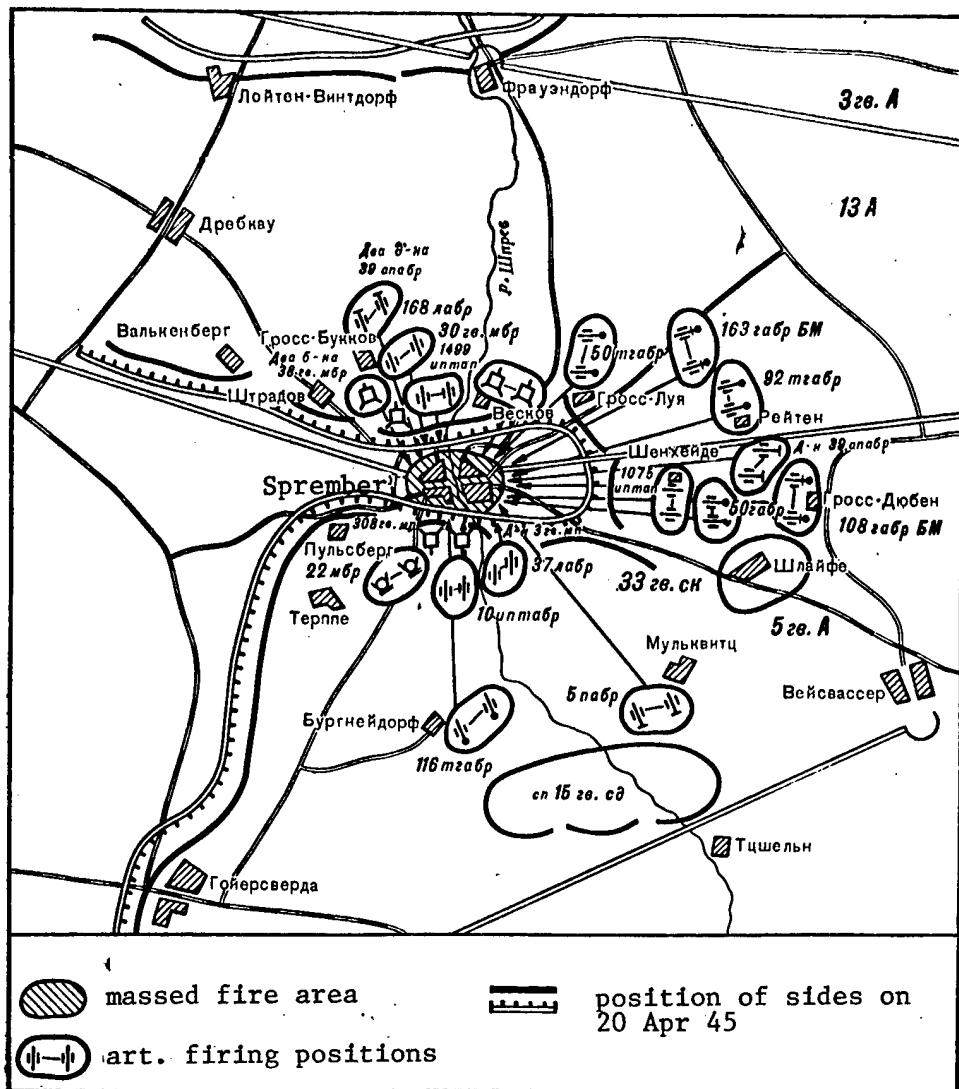


Diagram 1. Schematic Diagram of the Massing of Army Artillery Fire for the Period of the Artillery Support of Infantry and Tanks in Depth



operations group of the front artillery staff, the artillery commander during the second half of the day of 19 April and during the night of 20 April 1945, skillfully organized massed fire by all the artillery involved in storming the city and thereby ensured a significant shortening of the time required to defeat the enemy grouping in it. (7)

In the course of the Great Patriotic War the support of infantry and tanks in fighting in depth by the massed fire of artillery groups from indirect positions was combined with the firing and maneuvering of individual artillery support guns, platoons and batteries which were in the battle formations of the advancing troops. The effectiveness of employing the support weapons increased constantly. In the first place, starting with 1943, the highly

maneuverable self-propelled artillery mounts which were virtually invulnerable to small arms and machine gun fire began to be widely used as support guns. These were capable of quickly closing with the enemy and destroying its weapons by direct laying. Secondly, an observer scout was assigned to each of the artillery support weapons and he was to inform his commander when targets were detected. Without waiting for the call from the infantry, the crew destroyed enemy weapons which impeded the advance of the rifle subunits.

One should also note the experience of employing deep in the enemy defenses the support groups which, in particular, were established in the rifle regiments and divisions of the 31st Army of the Third Belorussian Front in the course of the Vitebsk-Orsha Offensive Operation. These consisted of 12-16 guns with a caliber from 45 mm to 122 mm. (8) In the course of the offensive, a part of the guns fired at detected targets while the other carried out a maneuver under this cover.

In repelling enemy counterattacks the plan was to set lines of creeping and fixed barrage fire, to carry out massed and concentrated fire as well as fire from the support guns. For example, in the Tallinn Offensive Operation in supporting the units of the 45th Guards Rifle Division on 17 September 1944, for repelling an enemy counterattack deliberate creeping barrage fire was opened against two lines, a planned fixed barrage fire was set and two unplanned concentrations of fire were made. The enemy infantry, in suffering losses, endeavored to cross the zone of fire faster but upon approaching the battle formations of the Soviet rifle subunits, it encountered fire from direct laying guns, the close support tanks and small arms and thus hit the dirt. The new intense shelling by Soviet artillery forced the enemy to retreat. (9) The artillery and antitank reserves in repelling the enemy counterattacks in depth were employed, as a rule, for reinforcing the antitank defenses on the threatened sectors.

The artillery assigned to support the advancing troops in depth was also employed for supporting the commitment of the mobile groups of the fronts and armies as well as the second echelons to battle. The areas of concentrated fire and the lines of barrage fire in preparing for the commitment to a breakthrough were readied ahead of time. The fire of the long-range artillery groups from the main positions was opened when called in by the commanders of the tank and mechanized brigades and the superior chiefs through the artillery correction officers who were in radio-equipped tanks. The artillery assigned for supporting the commitment to battle and the fire support of the armored and mechanized formations deep in the enemy defenses began to change battle formations considering the prompt occupying of new firing positions.

In crossing water obstacles deep in the enemy defenses, short artillery softening up was carried out in the form of intense shelling and was used to destroy enemy firing positions on the opposite bank of the river by firing guns assigned for direct laying.

The success of the artillery support for infantry and tanks in depth would have been inconceivable without solving such an important problem as countering enemy artillery. Its effectiveness depended largely upon the speed of detecting the enemy batteries which had not been neutralized during the

first two periods of the artillery offensive and had changed firing positions as well as those shifted to the breakthrough area from the reserve or from passive areas of the front. With the development of combat in depth, due to the relatively great time (up to 3-4 hours) for deploying sound ranging reconnaissance subunits into battle formation, the results of this reconnaissance was significantly reduced. For this reason, the main type of reconnaissance under the conditions of highly fluid fighting was air reconnaissance. In the operations of 1944-1945, for conducting this the fronts, as a rule, had separate correction-reconnaissance artillery regiments (okrap) which were basically assigned for reconnaissance of targets and fire correction for the army artillery groups.

Spotter aviation was employed rather successfully in the East Prussian Operation where it made 151 sorties. This made it possible to neutralize and partially destroy 129 enemy artillery batteries. The IL-2 aircraft were used for fire correction in the day and the Po-2 at night. (10) Usually a flight of spotter aircraft was assigned to an artillery cannon brigade and corrected the fire of its battalions.

In correcting fire by air, the enemy batteries were dependably neutralized by just the intense shelling of a battery or battalion. It took 5-10 minutes for a spotter plane to seek out and reconnoiter an enemy battery on the battlefield, it took 15-20 minutes for registration and correction of fire directly against the target with 2-4 checks and a total of 25-30 minutes and 40-60 rounds were spent on carrying out the mission. (11) Leadership over the combating of enemy artillery during combat in depth was entrusted to the commander and staff of the army artillery as they possessed artillery observation and air reconnaissance equipment as well as long-range artillery.

Thus, during the years of the Great Patriotic War artillery support for the infantry and tanks in conducting an offensive deep in the enemy defenses was improved as the commanders and staffs gained experience, as the quantity and quality of the artillery increased and as the organization of artillery reconnaissance improved. The most important areas of its development were: careful planning of fire and the maneuver of artillery to the entire depth of the set combat tasks, the employing of the most effective types of fire and methods for combating enemy artillery and other weapons.

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7-10.

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## DEVELOPMENT OF TORPEDO WEAPONS IN WAR YEARS

Moscow VOYENNO-ISTORICHESKIY ZHURNAL in Russian No 3, Mar 86 (signed to press 21 Mar 86) pp 73-76

[Article by Capt 1st Rank (Res) V. P. Vorobyev]

[Text] By the start of the Great Patriotic War, all the fleets had accumulated a significant supply of torpedoes. This completely met the demand for this type of weapon for the surface vessels, submarines and naval aviation. Thus, ships were armed with 53-cm (53-38 and 53-38U) and 45-cm (45-36 NU) torpedoes which in terms of their main parameters met the requirements of those times, were trouble-free and dependable in firing.

In July 1941, a new torpedo (53-39) began to be received and this had a higher engine power, as well as increased supply of air, kerosene and oil. It was universal and designed for employment by all ships equipped with the 53-cm torpedo tube. Fundamentally new was the wakeless electric torpedo (ET-80 for submarines) commissioned in September 1942.

Great attention was given to improving the existing torpedoes as well as developing new ones designed for naval aviation. By the end of the war the fleets had received a new model of torpedo, the 45-36 ANU (reinforced) and these could be dropped with an aircraft speed of flight up to 360 km an hour.(1) Other models were also developed including: the jet aviation torpedo (RAT) based upon a powder engine; the small-sized aviation torpedo 45-44 AN; the jet torpedo RT-45; experimental work commenced in 1938 was continued on the development of the homing acoustic torpedo (SAT).(2)

In terms of their basic parameters and combat capabilities, the Soviet torpedoes were as good as the analogous foreign models and for certain characteristics surpassed them (see the table). The quantitative indicator was high. Our nation's industry produced more torpedoes than the United States or Great Britain. Thus, in 1941, our fleets received 4,658 torpedoes while the Royal Navy received 1,926.(3)

The combat capabilities of torpedo weapons increased sharply after the introduction in the fleets of proximity fuzes with a stabilizer (NVS). In 1943, the NVS were delivered in a sufficient amount to the formations and units and were widely employed in hostilities.(4)

Torpedo Specifications\*

Torpedo Model (country)	Caliber, mm	Length, mm	Total Weight, kg	Charge Weight, kg	Range and Speed, m/knot	Engine Type
HPT Torpedoes						
53-38 (USSR)	533	7200	1615	300	4000/44.5 8000/34.5 10000/30.5	HPT, 2-cylinder horizontal type
53-38-U (USSR)	533	7450	1725	400	4000/44.5 8000/34.5 10000/30.5	Same
53-39 (USSR)	533	7488	1780	317	4000/51 8000/39 10000/34	Same
G-7a (Germany)	533	6960	1532	300	6000/44 8000/40 4000/30	4-cylinder radial
Mark X (England)	533	7193	1567	300	3000/47 5000/41	
Mark MK-8 (England)	533	6555	1453	220	5850/46 9000/35 13700/29	
Electric Torpedoes						
ET-80 (USSR)	533	7488	1800	400	4000/29	Motor power 80 kw
G 7-e (Germany)	533	7163	1608	300	3000/29	Motor power 72 kw
T-5 (Germany)	533	7115	1495	200		

\* Table compiled from data of TsVMA [Central Naval Archives], folio 236, file 18594, sheet 63.

In 1941, simultaneously with the 53-39 torpedo, the MO-3 gyroscope was introduced making it possible to have the smooth setting of the torpedo turning angles from 0 to 90 degrees to the right and left with a precision to

10 minutes. In 1943, this was received in sufficient quantity in the fleets and was widely employed on submarines and torpedo boats. At that time, the fleets had over 400 such instruments. They made it possible to switch to volley torpedo firing in a fan instead of firing with a time interval and this significantly increased the successful employment of torpedo weapons.

The success of each torpedo attack depended largely upon the technical and combat capabilities of the torpedo tube. The basic type of surface torpedo tubes employed on cruisers and destroyers was the triple-tube TA-1N. Torpedo boats (TKA) of the G-5 class were armed with stern double-frame torpedo launchers while boats of the D-3 class had two side-dropping devices. Submarines had torpedo tubes with air firing. In the course of modernizing the subs were equipped with instruments for bubbleless torpedo firing (BTS).

During the war years, torpedo fire control instruments (PUTS) were developed and introduced. In 1943-1944, submarines began testing a device for setting torpedo depth (PUG) and a gyroscope making it possible to effectively utilize the torpedo weapons. The automatic torpedo firer which was tested for submarines (TAS-L) was commissioned by the Navy.(5) In solving the problem of determining the elements of the target's motion for bearing and range, it made it possible with the sonar equipment available on the submarines to carry out a surprise attack without using the periscope, it facilitated the work of the commanders, it made it possible to open fire promptly and increased the precision of the torpedo volley. Both the PUG, the gyroscope and the TAS-L were widely employed only by the end of the war.(6)

The improvement of torpedo weapons also necessitated the development of the methods of their employment. In gaining combat experience, the submarine commanders understood enemy tactics, they constantly searched out targets, under conditions of strong antisub defense they acted boldly and decisively and attacked from close range. They switched from the firing of a single torpedo to the launching of several torpedoes simultaneously or after a certain number of seconds (time interval firing) depending upon range, course of the target, its speed and size. Here the possible errors in determining speed and course of the target were compensated for and the results of the torpedo attacks rose by almost 2-fold.

In saving the supply of torpedoes and in endeavoring to cause the enemy the most tangible losses, the submarine commanders sought out opportunities for attacking simultaneously two and more transports or ships in a convoy. For this reason, before going in to the attack they endeavored to take up the best position so that the launched torpedoes would overlap the courses of several targets and could hit them. Just in 1943, the submarines of the Northern Fleet made 103 cruises and carried out 79 torpedo attacks. During this period they sank 45 transports, a submarine, a destroyer, 7 minesweepers, 6 patrol boats, a minelayer, 2 trawler-subchasers, 4 patrol boats, a motor vessel of the icebreaker type and damaged 6 transports, a minesweeper and a patrol boat.(7) The submarines of the Baltic Fleet also employed torpedo weapons skillfully. In truth, during 1941-1943, the methods of firing here remained virtually unchanged. Its essence was to launch one or, as an exception, two torpedoes against a target and this was explained by the difficult situation in the theater. In 1944, the main method successfully employed in the

Northern Fleet was firing with the successive launching of several torpedoes with a short (6-10 seconds) time interval and a constant lead angle. The method of "fan" volley firing was also introduced and here the torpedoes, after simultaneous launching, headed toward the target with a slight angular spacing (about 1 degree). During the last 3 months of 1944, the Baltic Fleet submarines sank 13 enemy transport vessels. The greatest success was achieved by the submarines K-56 and K-51 which destroyed three and two enemy transports, respectively.(8)

The wide employment of the volley firing method significantly increased the effective operations of our submarines in the Black Sea. During the period of the liberation of the Crimea, from 11 April through 13 May 1944, they made 25 torpedo attacks of which 23 were successful.(9)

The patrol boats, destroyers and cruisers employed their torpedo weapons extremely rarely due to the existing situation and the nature of the combat actions of the ship forces. Thus, the destroyers "Besposhchadnyy" and "Boykiy" on 1 December 1942 in the area of Cape Shabler fired armament and torpedoes at the enemy vessels standing close to shore.(10) On 20 January 1943, in the area of Nordkapp the leader "Baku" sank one enemy transport by volley torpedo launching and gunnery fire while a second vessel suffered serious damage.(11)

Torpedo boats successfully employed torpedo weapons. As an example, from 1 through 12 May 1944, the torpedo boats of the Black Sea Fleet appeared 268 times on the enemy sealanes, they made 52 attacks and sunk and damaged over 30 enemy ships and vessels.(12) The torpedo boats of the Baltic Fleet in February-April 1945 sank 16 ships and vessels.(13) The attacks were made usually in small groups. The number of simultaneously fighting boats sometimes rose to 14. They attacked the targets in pairs from different directions simultaneously or sequentially with a minimum time interval, concealing themselves behind smokescreens set by the boats or from airplanes. The distance of the salvo was 2-4 cable lengths at night and 5-8 during the day.

Year after year the importance of torpedo aviation also increased. By the start of the war the Baltic and Black Sea Fleets had each one mine and torpedo air regiment. The Northern Fleet was able to organize such a regiment only in October 1942. But in July 1943, all of the fleets now had mine and torpedo air divisions. In terms of the number of ships and transports sunk, naval aviation held the leading place among the other branches of naval forces while the torpedo planes comprised its main attack force. Their number was small and for this reason up to 1943, the basic method of employing torpedo weapons from the air was to launch attacks by individual aircraft (free hunting). Subsequently group attacks were made: initially by uniform forces (3-4 aircraft) and later in cooperation with different branches of aviation (8-12 aircraft).

Usually low-level torpedo dropping was employed. The approach to the target was made employing evasive action and smokescreens. The attack was predominantly made by the direct closing method. Having spotted a convoy, the torpedo plane approached the selected target, here dropping to an altitude of

25-30 m. The position of the salvo was chosen with relative bearings close to 90 degrees, the distance of the salvo was 5-7 cable lengths and the altitude for dropping the torpedoes was 25-30 m. As a rule, the torpedo submerged to a depth of 2-3 m for large transports and fighting ships and 1-1.5 m when used against small ships. High altitude torpedo dropping, employed chiefly by the Northern Fleet, was made from altitudes of 1,500-3,000 m.

More and more frequently massed attacks were made by diverse naval forces employing torpedo weapons. In truth, these largely involved aviation and torpedo boats. Submarines were sporadically involved in joint actions.

In briefly analyzing the course of development of torpedo weapons and the methods of their employment during the years of the Great Patriotic War, it can be concluded that these were one of the powerful and effective means of warfare at sea.

The successes in the combat employment of torpedo weapons were largely determined by the high reliability of the Soviet torpedoes, torpedo tubes and fire control devices as well as by the good professional training of the submariners, torpedo boat crews and naval aviators.

The experience gained during the years of the Great Patriotic War in employing torpedo weapons has served as the basis for their further development. Improvement has been carried out by increasing the range and speed of the torpedoes, by increasing their accuracy and destructive force as well as by developing proximity fuzes.

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## OBSTRUCTING RAILROADS IN FIRST PERIOD OF WAR

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[Article by Candidate of Military Sciences, Docent, Col A. Ya. Ponomarev, and Candidate of Technical Sciences, Docent, Col (Ret) V. G. Smirnov]

[Text] The creation of obstacles on the routes of communications, including railroads, during the first period of the Great Patriotic War was one of the major tasks in engineer support for troop combat.

The blocking of the railroads on territory being abandoned was carried out in the aim of preventing or limiting their use by the enemy for transporting troops and materiel. This included: the blowing up of man-made structures (bridges, viaducts, drain culverts) and railroad track, the removal of elements of the track superstructure, the destruction of water supply and communications equipment as well as mining sections and installations with delayed action mines. The carrying out of these tasks was entrusted, as a rule, to the railroad troops which by the start of the war had 13 railroad brigades. Ten of these were concentrated on the territory of the Western military districts and carried out tasks of developing the railroad network in the border areas.

Due to the fact that Soviet military doctrine during the prewar period considered the strategic offensive to be the decisive type of military operations, the possibility of conducting a protracted defensive along the entire front and a retreat into the interior of the nation was not considered. For this reason the railroad troops were oriented basically to deliberate preparations for blocking only short head sections of the railroads.

The preparation of materials for creating obstacles had been carried out for a long time but without sufficient results. The units of railroad troops were actually without mechanization. They had only the obsolete Chervyak track wrecker and there were virtually no supplies of delayed action mines. However, the necessity of extensive actions to obstruct the railroads along the entire enormous Soviet-German Front arose from the very first days of the war.

Due to the absence of railroad troops in the Baltic Military District on the Lithuanian, a larger part of the Estonian and the Southwestern sections of the October Railroad, no obstacles had been prepared. Only individual bridges were blown up by units of engineer troops in the retreat.(1)

On the western sector the railroad troops (the 6th, 9th and 17th Railroad Brigades) did not promptly receive the tasks of obstructing the railroads. Units of railroad troops due to the arising necessity and in a number of instances upon orders of the command, took up the defensive in the area of cities and road junctions. Thus, the 6th Railroad Brigade during the day of 27 June defended the town and station of Stolbtsy. It then fought in the area of Svisloch Station. The 9th Railroad Brigade was involved in the defense of Belovezh. After fighting against forward enemy units in the area of Slonim, it was surrounded. The 17th Railroad Brigade was involved in the defense of Bobruysk.

Actually, from 22 June through 5 July, the railroad troops on the western sector did not carry out the task of blocking the railroads, they suffered significant casualties and lost all their equipment. The Brest-Litovsk, Belostok and a portion of the Belorussian Railroads were abandoned without any essential destruction. Certain objects were destroyed by units of engineer troops. Thus, three obstacle construction detachments under the command of Cols M. S. Ovchinnikov and I. G. Starinov and Mil Engr 2d Rank V. N. Yastrebov, during the period from 2 through 10 July, blew up more than 50 bridges and prepared 15 railroad junctions for detonation.(2)

On the southwestern sector, the railroads were blocked in an extremely complex situation. The subunits of the 4th, 5th and 27th Railroad Brigades had to participate in fighting repeatedly. As a consequence of this, the amount of destruction carried out on the Kovel, Southwestern, Lwow, Vinnitsa and Kishinev Railroads as a whole was insignificant.

Thus, on all fronts in a zone 350-500 km from the state frontier, the obstacles on the railroads in terms of their scale did not meet the existing strategic situation. They were unsystematic and insufficient in amount and did not have a substantial impact on enemy operations.

The main reasons for the shortcomings in creating obstacles during the initial operations of the Great Patriotic War were: the incorrect stationing of the railroad troops by the start of the war in relation to the developing situation, the acute shortage of obstacle construction equipment, the involvement of many units in fighting and unclear command and control of the railroad formations by the all-arms commanders and staffs.

The necessity of eliminating the existing shortcomings in the creation of obstacles, including on the railroads, was mentioned in the Directive of the General Staff of 7 August 1941 and in the Order of Hq SHC of 28 November 1941. It was recommended that the work of creating obstacles be carried out continuously and ahead of time and that this work be extended to a great depth.

It was impossible to immediately achieve a marked improvement in the organizing of the obstacles. Nevertheless in July-August, the railroad troop units from the line of Narva, Velikiye Luki, Orsha, Mogilev began to carry out planned obstructing of the railroads. At the start of June 1941, units of the 11th Railroad Brigade (commander, Col V. A. Nikolayev) covered the sectors to the southwest and south of Leningrad, frequently engaging the enemy. Even when surrounded, a company from the 40th Separate Railroad Reconstruction Battalion (commander, Maj A. M. Mikhaylov) destroyed installations at Luga Station. The bridge across the Shelon River at Shimsk, after being captured by the enemy, was blown up by a group from the 22d Separate Railroad Reconstruction Battalion.

The bridge across the Narva River at Ivan-Gorod was put out of use with exceptional skill and effectiveness by the platoon of Sr Lt A. I. Maksimov. Upon orders of Maj Gen I. G. Lazarev, the demolition troops blew it up on 17 August. Later, 90 railroad cars were pushed off the destroyed span structures of the bridge and a radio controlled mine was placed at the base of one of the supports. When the Nazis began to rebuild the bridge the mine was detonated. The enemy abandoned the continuation of the reconstruction work and for 8 months moved freight across the river with a cableway. (3)

On individual sectors the possibilities of obstructing railroad sections were little used. Thus, the Luga--Batetskaya section was left undamaged due to the delayed taking of a decision by the commander of the XLI Rifle Corps, Maj Gen I. S. Kosobutskiy. Many sections had to be obstructed under the conditions of direct exposure to the enemy without a combat cover for our troops. Thus, the 9th Separate Battalion for the Mechanizing of Railroad Work (commander, Maj S. A. Metla), in repelling attacks by enemy groups, destroyed bridges, the railroad track and other installations on the Gdov--Veymarn and Veymarn--Kotly--Oraniyenbaum lines.

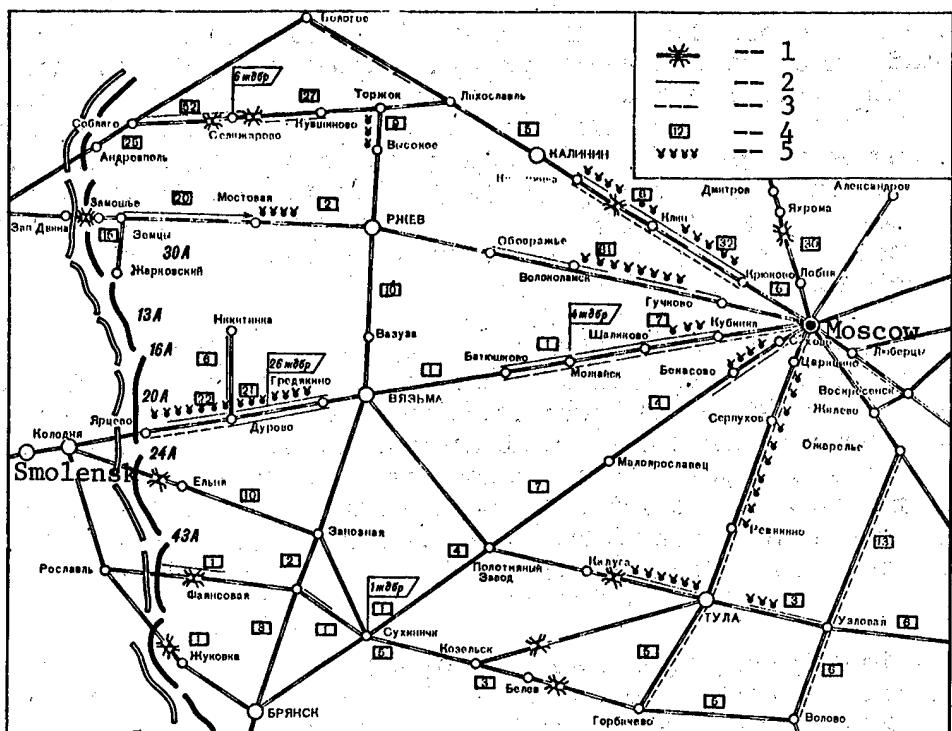
The railroad sections on the Karelian Isthmus in a difficult situation were blocked by units of the 9th Railroad Brigade (commander, Lt Col V. Ye. Matishev). The brigade had carried out the early preparations to obstruct the sections in accord with the elaborated plan. However, it was not possible to block all the bridges and track sections as a significant portion of the brigade's forces was involved in defensive combat. A bridge across the Vuoksa River at Andrea (now Kamenogorsk) was defended by subunits of the 1st Track Battalion and the 38th Roadbed Battalion which for a day drove off enemy attacks.

As a total in July-September 1941, on the approaches to Leningrad, the 9th and 11th Railroad Brigades destroyed 1,388 km of track on sections and at stations, 273 large, medium and small bridges and a number of other installations and removed 58 bridge spans. (4)

In the practice of obstructing the railroads a special place is held by the mining of the Kharkov Railroad junction and the adjacent sections (Belgorod--Kharkov, Gornya--Belgorod, Gotnya--Kharkov and others). In October 1941, here the 5th, 13th and 27th Railroad Brigades and units of engineer troops set 1,303 delayed action mines (including 500 antitrain mines) with delay times from 2 to 180 days. This was the first case in history of the mass employment

of delayed action antitrain mines. These blew up 106 trains. The detonating of delayed action mines also destroyed 9 bridges.(5) As a result, the work of the Kharkov Railroad junction was paralyzed for 5 months. Traffic over the Gotnya-Kharkov section which had been rebuilt by the enemy was not resumed due to the unceasing explosion of mines up to the summer of 1942.

On 30 September 1941, the Battle of Moscow commenced. Under the conditions of the autumn muddy season as well as the approaching winter, the obstructing of the railroads on the Moscow sector should have created significant difficulties for the enemy in organizing the movement of troops and materiel. Here the sections were blocked by the 1st, 4th, 6th and 26th Railroad Brigades (see the diagram). The obstruction plan envisaged the mass destruction of tracks and bridges, the mining of sections and installations with delayed action mines. During the period of 2-7 October, units of the 26th Railroad Brigade blew up 49 bridges and culverts and around 180 km of track on the Yartsevo-Vyazma and Durovo-Nikitinka sections and activated the delayed action mines. The plan for obstructing the sections was almost completely carried out by the brigade.(6)



Obstruction Plan on Railroads in the Battle of Moscow

Key:

- 1—Large bridges demolished
- 2—Areas of destroying track superstructure
- 3—Removed sections of track
- 4—Number of blown up bridges and culverts
- 5—Mined areas

The railroad sections of Andreapol--Torzhok--Likhoslavl--Moscow and Zapadnaya Dvina--Rzhev--Moscow were blocked by units of the 6th Railroad Brigade. Massive destruction was carried out on the sections of Andreapol--Selizharovo, Zamoshye--Mostovaya (see the diagram). Because of the insufficient scale of preparations the subsequent sections (Selizharovo--Torzhok--Likhoslavl--Kalinin--Kuzminka and Mostovaya--Rzhev--Obovrazhye) were poorly blocked. Obstacles were prepared on an extensive scale only further on, starting from the line of Kuzminka, Obovrazhye.

As a total during the Battle of Moscow, the military railroad workers destroyed 1,250 km of track, 2,504 switches, 395 bridges and 126 culverts. A number of sections was mined with delayed action mines. In addition, together with the special formations of the NKPS [People's Commissariat of Railroads], they removed 1,085 km of track, 948 switches and 45 bridge spans.(7) As a result the Nazi Command was unable to handle the reconstruction of the railroads. During the critical days of the battle for them, the rear services of the Army Group Center was able to bring up only 23 trains with materiel per day instead of the required 70.(8)

With the start of the offensive by the Nazi troops in the summer of 1942, the railroad troops were again confronted with the task of obstructing the railroads.

By the start of the battle on the great bend of the Don, only the 27th Railroad Brigade (commander, Col V. I. Pavlov) was here and prior to this it had taken up the defensive along the western bank of the Severskiy Donets. The most important objects on the Stalingrad sector were the bridges across the Chir and Don Rivers. Obstruction work in this area was led directly by Lt Col P. A. Frolov sent here by the chief of the railroad troops of the Stalingrad Front. Upon his instructions the 52d Track Battalion (commander, Capt N. S. Kruten) placed a remote controlled antitank minefield on the approaches to the bridge.

When the enemy forward detachments on 8 August endeavored to capture the bridge without a halt and cross the Don here, the platoon of Sr Lt Kudrenko, upon the orders of the commander of the 112th Rifle Division, blew it up.(9)

Characteristic of the actions of the railroad troops during the offensive engagement at Stalingrad and in the Caucasus were the typical shortcomings of the first months of the war in obstructing the railroads, that is, a lack of clear command and control, a shortage of men and weapons and, as a consequence, the limited scale of destroying and mining the sections.

The obstruction of railroads during the first period of the Great Patriotic War, along with technical support, was one of the main tasks of the railroad troops. Under the difficult conditions of conducting a defensive against superior enemy forces, the railroad units gained combat experience and improved their special skills, carrying out an ever-larger amount of work in obstructing the railroads.

The experience of the war showed that the broad scale and highly effective obstruction of railroads could be provided under the condition of their early

preparation in a zone of significant depth. The mass employment of delayed action mines with the obstructing of the railroads could provide a strong restriction and often a complete interdiction of enemy train traffic over an extended period. In terms of its importance, long-term minelaying should be on the same level as the destruction of railroad installations.

#### FOOTNOTES

1. TsAMO SSSR [Central Archives of the USSR Ministry of Defense], folio 229, inv. 201, file 31, sheet 145.
2. "Inzhenernyye voyska Sovetskoy Armii v vazhneyshikh operatsiyakh Velikoy Otechestvennoy voyny" [Engineer Troops of the Soviet Army in the Major Operations of the Great Patriotic War], Moscow, Voyenizdat, 1958, p 21.
3. M. G. Chivilev, A. S. Yefimov, P. A. Matrosov, I. F. Sinelnikov, "Magistrali besstrashnykh" [Main Lines of the Intrepid], Moscow, Lenizdat, 1971, p 56.
4. TsAMO, folio 24, inv. 257659, file 145, sheet 36.
5. Ibid., folio 236, inv. 110692, file 2, sheet 37.
6. V. F. Dikushin, A. M. Kiselev, "Voyennyye soobshcheniya Sovetskoy Armii v bitve pod Moskvoy" [Military Lines of Communications of the Soviet Army in the Battle of Moscow], Moscow, Voyenizdat, 1960, Insert 5.
7. Ibid., p 93.
8. "Itogi vtoroy mirovoy voyny" [Results of World War II], Moscow, Inostrannaya literatura, 1957, p 124.
9. S. S. Kosovich, A. M. Filimonov, "Sovetskiye zhelezodorozhnikи" [Soviet Railroad Troops], Moscow, Voyenizdat, 1984, p 133.

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## DEFEAT OF COUNTERREVOLUTION IN CENTRAL ASIA

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[Review by Doctor of Historical Sciences, Professor, Honored Scientist of the RSFSR, Col (Ret) N. N. Azovtsev of the book "Narody Sredney Azii v borbe protiv interventov i vnutrenney kontrrevolyutsii" (People's of Central Asia in the Fight Against the Interventionists and the Internal Counterrevolution) by Kh. Sh. Inoyatov, Moscow, Mysl, 1984, 463 pages]

[Text] The victory of the Great October Socialist Revolution and the establishing of Soviet power in Turkestan deprived the beys, khans and other feudal lords of the opportunity to unmercifully exploit the working masses of people. Having lost its privileges, the feudal-bey upper clique endeavored by any measures, including armed combat, to regain the old order. A civil war broke out in the area.

Regardless of the fact that a significant number of books has been written on the history of the Civil War and intervention in Central Asia, this question has been far from exhausted. Of definite interest is the monograph by Kh. Sh. Inoyatov "Narody Sredney Azii v borbe protiv interventov i vnutrenney kontrrevolyutsii." The author examines the given question on a scale of the entire enormous region which includes the territory of the four present Central Asian republics and the southern oblasts of Kazakhstan. Here the struggle of the Turkestan workers against the united forces of the external and internal revolution has been examined over a great historical time interval: from the start of the Civil War (mid-1918) to the defeat of the bands of the Basmacks of Ibragim-Bek (1931).

The reviewed book is based upon the works of V. I. Lenin, the materials of our party's congresses, the documents of the VItSIK [All-Russian Central Executive Committee] and the RSFSR SNK [Council of People's Commissars] as well as of the local party and soviet bodies. It has also drawn upon information from documentary collections and the local periodic press.

The book examines the policy of imperialism, particularly English, aimed at fanning nationalism and religious fanaticism. But the hope of the internal and external counterrevolution of strengthening national prejudice among the peoples of Central Asia failed due to the carrying out by our party of Lenin's

nationality policy and the fraternal aid of the Russian people to the population of the former colonial borderlands.

The monograph examines the characteristic traits of the fighting on various sectors of the Turkestan Front (Aktyubinsk, Transcaspian, Fergana and Severo-Semirechensk). The author analyzes the social base of the local counterrevolution and investigates the most important conditions which ensured the victory of the revolutionary forces in Central Asia.

The work shows the leading role of the Russian workers who headed the heroic struggle of the Central Asian workers against the internal counterrevolution and the intervention.

The author pays particular attention to bringing out the leading role of the Communist Party of Bolsheviks and its fighting detachment, the Turkestan Communist Party, and to the giving of aid to the Turkestan republic by the Central Committee of the RKP(b) [Russian Communist Party (Bolshevik)], the Soviet government headed by V. I. Lenin and the laboring masses of the RSFSR. The work discloses the enormous activities of the Turkestan Commission of the VTsIK and the RSFSR SNK as well as the Turkestan Bureau of the RKP(b) Central Committee and their activities in carrying out Lenin's nationality policy on the questions of defending the revolutionary victories of the Central Asian workers.

The reviewed work is a complex one. Along with elaborating the questions related to the armed defense of the victories of October, it takes up an entire range of political, socioeconomic and cultural-educational measures carried out by the Communist Party and Soviet Power.

Under present-day conditions the questions taken up by Kh. Sh. Inoyatov are not only of cognitive scientific but also practical importance. The historical experience of our party in organizing the defense of the revolution's victories against the external and internal counterrevolution in the Central Asian republics is of important international significance. It is being creatively employed by the peoples of countries which have been liberated from colonial slavery in the fight against imperialism and the local reaction. The monograph is a major contribution to unmasking the bourgeois falsifiers who have endeavored to distort the history of the heroic struggle of the Central Asian workers in defending the victories of the Great October Socialist Revolution.

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